DOCUMENT RESUME

ED 481 855 EC 309 881

AUTHOR Miller, Phyllis, Ed.

TITLE What Are/Do Gifted Teenagers Like?

INSTITUTION American Mensa Education and Research Foundation, Arlington, TX.

PUB DATE 2002-00-00

NOTE 76p.; "Published three times per year. Theme issue.

AVAILABLE FROM Mensa Education and Research Foundation, 1229 Corporate Dr. West, Arlington, TX 76006-6103. Tel: 973-655-4225; Fax: 973-655-7382.

PUB TYPE Collected Works - Serials (022) -- Reports - Research (143)

JOURNAL CIT Mensa Research Journal; v33 n2 Sum 2002

EDRS PRICE EDRS Price MF01/PC04 Plus Postage.

DESCRIPTORS Adolescents; Bisexuality; Competition; Cooperative Learning; *Gifted; *Homosexuality; Lesbianism; *Peer Relationship; Secondary Education; Self Concept; Social Development; Student Experience; *Student Motivation; *Talent

ABSTRACT

This journal presents four articles on gifted adolescents. The first is "Gifted and Gay: A Study of the Adolescent Experience" (Jean Sunde Peterson and Heather Rischar). This paper reports on a retrospective study of the experiences of 18 gay, lesbian, or bisexual young adults with high ability, finding themes of danger, isolation, depression, and suicidal ideation together with high achievement and extreme involvement in activities. The second study reported is "Respect for Peers with All Levels of Ability" (John Feldhusen), which developed a new scale to examine the self concepts and attitudes of gifted youth and found that, although they see themselves as superior thinkers, they are not arrogant or intolerant of less able thinkers. The third article is "A 'Rag Quilt': Social Relationships among Students in a Special High School". This study at a public residential high school for gifted students used ethnographic and phenomenological methods and found a social system that the students judged as different from their home schools. The final paper is "Dimensions of Competitive and Cooperative Learning among Gifted Learners" by John F. Feldhusen and others. This study explored the dimensionality of preferences for competitive and cooperative learning with 176 gifted students attending a summer program. Cluster analysis identified five relatively homogeneous groups in terms of preferences for cooperative and competitive learning. (Individual articles contain references.) (DB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 481 855

What Are/Do Gifted Teenagers Like?
Mensa Research Journal

Published By:
Mensa Education & Research Foundation

Volume 33, Number 2/Summer 2002

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

P. Miller

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

EC 309881

BEST COPY AVAILABLE

Published by Mensa Education & Research Foundation and Mensa International, Ltd.™

MENSA
Research Journal

What Are/Do Gifted Teenagers Like?

Vol. 33, No. 2

MENSA
Research Journal

Vol. 33, No. 2 Summer 2002

Table of Contents

Editor's Preface 5

Gifted and Gay: A Study of the Adolescent Experience
by Jean Sunde Peterson and Heather Rischar 6

Respect for Peers with All Levels of Ability
by John Feldhusen 34

A "Rag Quilt": Social Relationships Among Students in a Special High School
by Laurence J. Coleman 41

Dimensions of Competitive and Cooperative Learning Among Gifted Learners
by John Feldhusen, David Yun Dai, and Pamela R. Clinkenbeard 59

Cover courtesy of Montclair State University
© 2002 Mensa Education & Research Foundation

Mensa Research Journal is published three times a year, in conjunction with Mensa International, Ltd., by the Mensa Education & Research Foundation, Dr. Michael Jacobson, president, 1840 N. Oak Park Ave., Chicago, IL 60635-3314.
© 2002 Mensa Education & Research Foundation.

Staff:

Editor • Phyllis Miller, 23 Lexington Road, Somerset, NJ 08873, MRJ@merf.us.mensa.org

Associate Editor • Francis Cartier, 1029 Forest Ave., Pacific Grove, CA 93950, fcar889755@cs.com

Circulation Manager • Jill Beckham, American Mensa, Ltd., 1229 Corporate Drive West, Arlington, TX 76006-6103, JillB@AmericanMensa.org.

Production Manager • Annette L. Kovac, American Mensa, Ltd., 1229 Corporate Drive West, Arlington, TX 76006-6103, AnnetteK@AmericanMensa.org.

Proofreader • Nancy Michell, 31 12th St., Somerset, NJ 08873, nancymic@microsoft.com.

Mensa Research Journal
Editorial Advisory Board

Francis Cartier, Ph.D.
Ilene Hartman-Abramson, Ph.D.
Michael H. Jacobson, Ph.D.
Ken Martin, Ph.D.
Caroline Mossip, Psy.D.
Charles A. Rawlings, Ph.D.
Abbie F. Salny, Ed.D.
Hirsch Lazaar Silverman, Ph.D.

Each article reprinted in *MRJ* is reprinted with permission of the copyright holder.

The Journal is published three times a year. Subscribers will receive all issues for which they have paid, even if frequency of publication varies. Membership in Mensa is not required. To subscribe, order back issues, or report address changes, write to *Mensa Research Journal*, 1229 Corporate Drive West, Arlington, TX 76006-6103.

The Mensa Education & Research Foundation

Mensa, the high IQ society, provides a meeting of the minds for people who score in the top 2 percent on standardized IQ tests. As an international organization with thousands of members worldwide, Mensa seeks to identify and foster human intelligence; encourage research in the nature, characteristics and uses of intelligence; and provide a stimulating intellectual and social environment for its members.

The first two of these purposes are largely carried out by the Mensa Education & Research Foundation (MERF). MERF is a philanthropic, nonprofit, tax-exempt organization funded primarily by gifts from Mensa members and others. MERF awards scholarships and research prizes, publishes the *Mensa Research Journal,* and funds other projects consistent with its mission.

For more information about the Mensa Education & Research Foundation, write to MERF, 1229 Corporate Drive West, Arlington, TX 76006-6103. For information about joining American Mensa, call 800/66-MENSA. See also www.us.mensa.org. If you reside outside the U.S., see the Mensa International, Ltd., Web site at www.mensa.org.

To renew your subscription or subscribe to the *Mensa Research Journal*, just fill out the form on the next page (or a photocopy of it) and mail it with a check in the appropriate amount. Please refer to your mailing label now to determine how many issues of the *MRJ* you will receive before your subscription expires.

To: MERF, 1229 Corporate Drive West, Arlington, Texas 76006-6103

Please enter my subscription to the *Mensa Research Journal*.

❒ New ❒ 3 issues U.S. $21 (outside U.S. $25)
❒ Renewal ❒ 6 issues U.S. $42 (outside U.S. $50)
❒ Sample *Mensa Research Journal* U.S. $7 (outside U.S. $9)

Subscription amount enclosed $ _____
Please make payments in U.S. funds.

I would like to make the following tax-deductible contribution to MERF.

❒ Contributor ($25 to $99)	$ _____	Allocation (if desired)
❒ MERF Donor ($100-249)	$ _____	❒ General support
❒ Bronze Donor ($250-499)	$ _____	❒ Scholarships
❒ Silver Donor ($500-999)	$ _____	❒ Gifted Children Programs
❒ Gold Donor ($1,000-2,499)	$ _____	❒ Addition to endowed fund
❒ Platinum Donor ($2,500+)	$ _____	named _____

I would like my contribution to be a ❒ Memorial honoring _____
❒ Tribute honoring _____

Please send acknowledgement or notice to _____

Address _____

City/State/Zip _____

Name and address of contributor/subscriber:

Name _____ Member # _____

Address _____

City/State/Zip _____

For Office Use

Date received: _____ Total $ _____ Bank: _____ Date entered: _____

Sub code: _____ First issue number: _____ Date sent: _____

Editor's Preface

Well, I don't know. If you're asking me what teenagers like or what teenagers are like, I don't know. I work at a university where many students are teenagers, albeit at the older end of the age range. And no two are alike.

The purple-hair and the tongue piercing seem to be less than they were a few years ago. Footwear has gone from sneakers to platform slides. Torn jeans have given way to sleek black pants. Everyone has a cell phone, and uses it all the time (not in class, but walking through the halls, walking across campus, sitting in front of the Student Center, and in the ladies room!).

Here in New Jersey, it's been less than a year and a half since a fire in a student residence at Seton Hall University killed three students, and less than a year since September 11, the major event of which could be clearly seen from our campus on a hilltop overlooking the New York City skyline. A few days ago a young couple committed suicide by throwing themselves into the path of an oncoming Amtrak train. The brother and sister of the young woman are students here and many on our campus know them.

The job market is not what it was only a year or two ago, and students are who are graduating now are not necessarily assured of a well-paying, or any, position. There is war, and there is terrorism, and maybe worst of all, there are no clear lines as to what or who is right. So there is a sense of seriousness now that's different from before, and the campus seems a quieter place.

Still, it's wonderful to work in a place where there are so many teenagers. They add life and sparkle, and, like it or not, they start the trends and set the paths the rest of us will be following. While the over-55 segment is the wealthiest and fastest growing demographic in America, the 12-19 segment is the one marketers covet because of teenagers' willingness to try the new and their desire to be the avant garde.

In this issue of the *Mensa Research Journal*, several researchers take a look at adolescents, particularly those who are gifted. Giftedness makes a difference in how people approach life. For teenagers exploring how to shape their personalities and live their lives, intelligence does not necessarily lead to intelligent choices. But isn't that true of all of us?

Phyllis Miller
Editor

Gifted and Gay: A Study of the Adolescent Experience

By Jean Sunde Peterson, Purdue University, and Heather Rischar, Truman State University

Abstract

A retrospective study of the adolescent experience of 18 gay, lesbian, or bisexual young adults with high ability (12 males, 6 females) using a postpositivistic mode of inquiry found significant themes of danger, isolation, depression, and suicidal ideation, together with high achievement and extreme involvement in activities, in their narrative responses to an extended questionnaire. Participants described personal responses to wondering about sexual orientation, being convinced, and eventually coming out, and the effects on school and family relationships. Half reported awareness by the end of elementary school, and almost all were convinced by grade 11. Most participants offered suggestions for educators in general and for those involved in gifted programs, and many of the suggestions have implications for staff development.

There has been only rare attention in gifted-education literature to the experience of being both gifted and gay/lesbian/bisexual (e.g., Friedrichs, 1997; Tolan, 1997). However, if estimates that 10 percent of the population may be homosexual and that one in five families has a gay or lesbian child (e.g., Dahlheimer & Feigal, 1991) are accurate, then it is likely that 10 percent of those identified as gifted are homosexual, as well, and that they and their extended families experience the emotional consequences of association with a stigmatized sexual orientation (Fontaine & Hammond, 1996). Aware of the gap in the literature, the researchers in this retrospective study sought to explore the experience of being both gifted and gay/lesbian/bisexual (hereafter referred to as GLB) in the interest of contributing to the knowledge base and discovering areas worthy of further study.

Relevant Research

Providing a foundation for exploring the intersection of giftedness and gayness is the literature that addresses, for example, giftedness as related to hypersensitivity (Lovecky, 1992), perfectionism (Hewitt, Newton, Flett, & Callander, 1997), emotional intensity (Piechowski, 1997), stress (Ferguson, 1981), depression (Webb, Meckstroth, & Tolan, 1982), and suicide (Farrell, 1989; Hayes & Sloat, 1989; Weisse, 1990). An additional connection between giftedness and gayness is the reality that, during high school, adaptation to uncertainty about sexual orientation may take socially acceptable forms such as academic or ath-

Reprinted from *Gifted Child Quarterly*, Vol. 44, No. 4, Fall 2000.

letic overachievement, perfectionism, or over involvement in extracurricular activities (Harbeck, 1994), characteristics often associated with individuals perceived to be gifted. However, according to this study, high-ability adolescents are unlikely to discuss sexual orientation with significant adults in their lives.

Sexuality and the Gifted

Sexual development is an important part of a child's making cognitive, emotional, and physical sense of the world. Yet parents may be uncomfortable discussing concerns about sexuality with their child (Roeper, 1997). Educators, including those in gifted education, may be similarly uncomfortable, as is perhaps reflected in the dearth of gifted-education literature related to sexuality in general. However, according to Tolan (1997), various affective areas related to giftedness, including androgyny, developmental asynchrony, early awareness of and concern about the complexity of sexuality, non-stereotypical gender behavior, and intensity of relationships, may contribute to confusion and fear about sexual identity, with effects on sexual behavior and development, including premature self-labeling. Though it has long been accepted that same-sex sexual behavior is not unusual during childhood (cf. Kinsey, Pomeroy, & Martin, 1948) and that sexuality is an area of flux for teens, lack of discussion or available information may, in fact, contribute to premature developmental foreclosure (Fontaine & Hammond, 1996). Tolan observed that the gifted may try to lessen their confusion through sexual experimentation or rejecting sexuality altogether.

Differentness and Isolation

There is another possible junction of giftedness and gayness. Exceptional ability may contribute to a sense of differentness, with a consequent impact on social relationships (Cross, 1995; Cross, Coleman, & Terharr-Yonkers, 1991; Webb, Meckstroth, & Tolan, 1982). When a gifted child is also GLB, that sense of differentness likely intensifies. In fact, social, emotional, and cognitive isolation was found to be the most frequent presenting problem at The Institute for the Protection of Lesbian and Gay Youth in New York City (Hetrick & Martin, 1987). The fact that GLB adolescents must generally find an identity and move to sexual and social maturation without role models and discussions available to heterosexual peers (Schneider, 1989) may exacerbate feelings of isolation and differentness already experienced by those with high ability. They also may have difficulty finding partners compatible with both sexual identity and intellectual capacity. If individuals are predisposed to isolation and lack of support, as many highly able adolescents are, sexuality issues may be life-threatening (Tolan, 1997).

The relationship between differentness and problems in self-esteem (Sullivan & Schneider, 1987) and between low self-esteem and suicide (McFarland, 1998)

has also been discussed. Despite these concerns, until recently in the United States, "society has traditionally suppressed and ignored the social state of being homosexual, especially among adolescents, apart from the stigma and being pariah" (Herdt, 1989, p. 22). From 1977 to 1993, only three articles on GLB adolescents were published in *The School Counselor* (Fontaine & Hammond, 1996). However, an issue of *Professional School Counseling* (Baker & Campbell, 1998) devoted to sexual minority youth represents increasing attention to school and other concerns of GLB adolescents. There has also been interest in comparing GLB concerns cross-culturally (e.g., Herdt; Ross, 1989; Rotheram-Borus, Hunter, & Rosario, 1994). Related to this interest is an awareness that some segments of minority communities believe that all gay people are white, thereby compounding the lack of access to accurate information about homosexuality by adolescents of color (Fontaine & Hammond, 1996).

Almost all pertinent literature comes from journals not specifically related to education for the gifted. An examination of that literature provides a backdrop for the areas of focus in the current study: school issues, self-destructive behavior, sexual-identity formation and other developmental issues, the process of coming out, and strategies for support.

School Issues

The School Climate. School for GLB adolescents may be uncomfortable at best and dangerous at worst. Adolescents must simultaneously deal with two developmental tasks, growing up and developing sexual identity, while at the same time hearing homophobic stereotypes and taunts and witnessing humiliation and violence (Zera, 1992). They hear derogatory labels for homosexuals being applied to anyone who is disliked, and adolescent emotional lability and lack of accurate information about homosexuality exacerbate fears (Fontaine & Hammond, 1996). Butler (1994) found that teachers not only lacked knowledge about homosexuality, but also generally held slightly homophobic attitudes and were unwilling to address GLB issues or behave in supportive ways.

Danger. In addition, GLB adolescents are likely to experience verbal and physical harassment, including bullying (Baldauf, 1997). One in six gay students is beaten badly enough to seek medical attention, 20 percent skip school at least once a month because of fear, and, in one city, 28 percent dropped out of school (Bart, 1998). In fact, homophobia may be more vicious in high schools than in any other institution. One-third of GLB high school students surveyed had experienced direct violence due to their sexual identities (Elia, 1993). Straight students, too, may suffer from anti-gay abuse, a result of not fitting gender stereotypes, such as female athletes and males interested in dance or theater (Bart, 1998). Savin-Williams (1994) found that incidents of harassment were sometimes instigated by faculty, staff, and administrators in schools, and Griffin (1994) reported intense homophobia in athletics. Hodges, Malone, and

Perry (1997) found that victimization occurred when children had few friends, had friends who were incapable of fulfilling a protective function, or were rejected by peers. Hetrick and Martin (1987), studying 329 GLB adolescents, found that one-third had experienced violence. However, 49 percent of that violence was at the hands of the family.

Depression and Self-Destructive Behaviors

Probably as a result of the milieu just described, sexual orientation has been increasingly connected to suicide (e.g., Fontaine, 1998; Gibson, 1989; Hammelman, 1993; Hershberger, Pilkington, & D'Augelli, 1997; Lock, 1998; Poppenhagen & Qualley, 1998). Difficulties related to increased self-awareness of sexual orientation are reflected in one finding that 39 percent of GLB adolescents had attempted suicide, and 52 percent of these had made more than one attempt (Rotheram-Borus et al., 1994). According to various sources (Fontaine; Kissen, 1993; McFarland, 1998), one in three adolescent suicides may be attributed to sexual identity issues. It should be noted, however, that suicide completions and attempts by adolescents decrease with age (Hetrick & Martin, 1987).

Suicide among GLB adolescents may be attributed to feelings of disenfranchisement, social isolation, rejection by family and peers, and self-revulsion (Savin-Williams, 1994). The oppression and stigma associated with homosexuality in a homophobic environment can contribute to and exacerbate problems of low self-esteem, isolation, guilt, depression, difficulty with creating identity (Fontaine, 1998), and perfectionism (Harbeck, 1994). Internalized homophobia, an intense self-contempt resulting from extreme homophobia in the schools (Elia, 1993), may be a factor in all of these (Lock, 1998).

In general, indirect self-destructive behavior, including substance abuse, running away from home, smoking, and risky sexual behavior, appears to be associated with the stress of having a stigmatized sexual orientation (Ferguson, 1981; McCarthy, Brack, Laygo, Brack, & Orr, 1997). It is also difficult for teens to join the larger gay subculture, since most activities are adult-oriented (Zera, 1992). According to Schneider (1989), the "alcohol-focused, sexually loaded environment" (p. 126) of the bar scene, which "bypasses the gradual and safe ways in which most heterosexual youngsters learn to deal with alcohol and sexual intimacy" (p. 127) is "not appropriate for young people, and they themselves know it" (p. 126).

Sexual-Identity Formation

The researchers recognize that assuming a consensus concerning the meaning of the phrase *sexual identity* is unwise, given the related, ongoing essentialism-constructionism debate among psychologists (e.g., Bohan, 1996). Nevertheless, theorists who have explored the sexual-identity construct will be

discussed here. Schneider (1989) proposed five stages of sexual-identity development: growing awareness of homosexual feelings and identity; developing positive evaluations of homosexuality; developing intimate same-sex romantic/erotic relationships; establishing social ties with GLB peers or community; and self-disclosure. Cass (1979) theorized that GLB youth progress through six stages: confusion (involving questioning and searching for information), comparison, tolerance, acceptance, pride, and synthesis. Adolescence is not necessarily the time for expression of sexual identity, but the awareness exists (Waldnor-Haugrud, & Magruder, 1996). In fact, children as young as 5 or 6 may know they are somehow different in sexual orientation (Cantwell, 1997). According to Zera (1992), GLB adolescents may cope by identifying themselves as heterosexual or becoming gender deviant, exaggerating stereotypical homosexual characteristics out of a belief that this is how gay people dress or behave. They may also test their orientation with intercourse with the other gender, basing their conclusions on whether the experience is emotionally satisfying (Edwards, 1996).

Evans and Levine (1990) proposed that timing, duration, and outcome of sexual identity formation are affected by internal and external factors: the social context, degree of peer and family support, and psychological adjustment of the individual involved. Edwards (1996) found support for the fact that GLB adolescents can operate with good social adjustment in heterosexual society, identifying and disclosing to whatever degree seems necessary, if they accept and develop an explanation of who they are and can withstand the homophobic attitudes they will experience. However, Fontaine (1998) noted that the time of identity confusion represents high potential for suicide attempts. Uribe (1994) focused on the vulnerability of middle school GLB students in the school environment, in line with findings that awareness of sexual orientation occurs at or before puberty (Anderson, 1987; Benvenuti, 1986). In fact, age 10 has been noted as a time of significant hormonal development, with implications for the development of sexual attraction, cognition, emotions, motivations, and social behavior (McClintock & Herdt, 1996).

The idea of disenfranchised grief applies here, a type of grief that is not acceptable or understood by others in the culture. As GLB individuals struggle with sexual identity during adolescence, they often anticipate loss of friends, family support, identity, a vision of their own self-worth (Lenhardt, 1997), and their church (Ritter & O'Neal, 1989). Gifted GLB adolescents, who may feel a responsibility to be perfect (cf. Hewitt et al., 1997), may also have a sense of failure as they contemplate an identity unacceptable to others (Coleman & Remafedi, 1989; Fontaine & Hammond, 1996; Schneider, 1989; Sullivan & Schneider, 1987). Lack of role models may exacerbate their stress. In regard to the intersection of gayness and giftedness, Kissen (1993) observed that GLB teens carry a double burden of being part of an oppressed minority and knowing absolutely no one like themselves. Based on Kissen's comments, gifted GLB students might then carry a triple burden.

Lock (1998) offered a developmental framework, reflecting these burdens, through a case study of a gifted gay male adolescent with internalized homophobia. At age 12-14, the client experienced depression, preoccupation with gay stereotypes, and unconscious seeking of externalized homophobia to relieve internal discomfort. He also avoided leaving the family because of anxiety about peer acceptance, with that anxiety contributing to volatile emotional responses to the family. At age 14-16, there was increased depression, as well as heightened needs for and frustration about peer relationships. Later came a sense of hopelessness about the future, self-destructive behavior, a sense that high school would never end, and ambivalence about leaving home and about future opportunities for intimacy. Eventually, he was able to integrate personal aspects of the self with gay-group identity.

Coming Out

The current study was interested in family and school experiences surrounding the "coming out" process. Among the earliest to address this phenomenon, deMonteflores and Schulz (1978) defined it as "the developmental process through which gay people recognize their sexual preferences and choose to integrate this knowledge into their personal and social lives" (p. 60). Ben-Ari (1995) found that most GLB individuals came out to one parent first, most often the mother. Fears about coming out stemmed from the irreversible nature of disclosure, and fear of rejection was the most frequently mentioned fear. The mean age of coming out was 21. The most common reason for coming out was "not to hide, not to live a lie" (p. 310). However, according to Popenhagen and Qualley (1998), coming out may move a person from a socially approved and validated existence to a socially condemned and oppressed existence, a loss of status. Such loss, including loss of face, may lead to suicide. Herdt (1989) noted that the closeness of coming out to puberty or to separation from parents' households contributes to experiencing these situations as crises.

Parents often experience grief after a son or daughter has come out to them because they have lost some of their hope for the future for their child, the essence of whom has changed for them (Borhek, 1993). Cramer and Roach (1988) found that most parents initially reacted negatively to the disclosure, but became more accepting over time. The majority of participants in their study reported having a more positive relationship with mothers than with fathers, both before and after coming out. In general, a positive prior relationship with parents predicts healthy resolution (Borhek), and parents who perceive that disclosure is within the context of intimacy adjust more easily than when otherwise disclosed (Ben-Ari, 1995).

Given the aforementioned lack of literature addressing the co-incidence of gayness and giftedness and recognizing that parents may indeed idealize a gifted child (Cornell, 1984), drawing parallels between coming out as gifted and coming out as GLB should be done only cautiously and should certainly acknowl-

edge that such parallels might trivialize the great difficulties associated with coming out as GLB. Being labeled "gifted" may indeed be stigmatizing and may have mixed effects on parent, sibling, and peer relationship (Colangelo & Brower, 1987). In fact, parents may "closet" their child's abilities because of community attitudes (Webb et al., 1983). Gifted individuals themselves may hide abilities, managing information about themselves in response to the threat of the potentially stigmatizing association with giftedness (Cross, Coleman, & Stewart, 1995). In this regard Mahoney's (1998) Gifted Identity Formation Model, which can serve as a guide for understanding gifted individuals, emphasizes that it is important to be aware of how giftedness is valued in the individual's environment. Among the constructs that this model emphasizes are validation (acknowledgement of giftedness by self or others), affirmation (interactive acknowledgement and reinforcement), and affiliation (alliance with others who are similar). These constructs may be applied to GLB identity development, as well. Important relationships are the source for validation, affirmation, and affiliation. Problems in these relationships, including significant others' issues regarding sexual orientation, undoubtedly have an impact on sexual-identity formation. Given the difficulties associated with unsupportive context in each case, it may be assumed that self-validating and coming out as *both* gifted and gay may present especially formidable challenges.

Other Aspects of Development

Unfortunately, there is a lack of understanding of what is normative in regard to GLB development, with a notable lack of research looking at changes that occur as GLB youth move into adulthood (Edwards, 1996), including in adolescents and young adults who were physically or emotionally abused by peers or family (Boxer & Cohler, 1989). The majority of research on gay and lesbian development has involved retrospective studies with adult males (Zera, 1992) and has been based on individuals in counseling and support groups (Edwards, 1996). In quantitative studies, sample sizes have often been small, and heterosexual comparison groups have not always been utilized (Zera). Qualitative methodology has been used relatively recently to build theory of GLB development (e.g., Ben-Ari, 1995; Kissen, 1993; Omizo, Omizo, & Okamoto, 1998; Schneider, 1989) and to learn how gifted children and adolescents cope with pressures (Sowa & May, 1997).

Uribe and Harbeck (1992) found that all of the 50 self-identified GLB high school students in their study felt that their social development had been seriously inhibited by their homosexuality. These authors asserted that GLB adolescents may be at a higher risk of dysfunction because of unfulfilled developmental needs for identification with a peer group, lack of positive role modeling influences and experiences, negative societal pressures, and their dependence upon parents and educators who may be unwilling or unable to provide emo-

tional support concerning the issue of homosexuality. (p.16)

Strategies for Support

As a result of increased attention to GLB adolescents, strategies have been proposed for support of this at-risk population. These strategies have included educating service providers (Schneider & Tremble, 1986) and school staff (Schwartz, 1994) and encouraging self-examination in regard to homophobia and biases concerning differences (Dunham, 1989); implementing policies protecting GLB students from discrimination and violence (Bart, 1998); establishing distance support networks (Bridget & Lucille, 1996) and out-of-school (Singerline, 1994) and school support groups; providing information about health and other concerns (Cranston, 1992); altering curricula to include references to GLB historical and literary figures (Schwartz, 1994; Sumara, 1993); making literature related to GLB adolescent concerns available (Hanckel & Cunningham, 1976); and providing therapeutic interventions (e.g., Bradish, 1995; Kottman, Lingg, & Tisdell, 1995). Appropriate counseling can address concerns about sexual identity and explore daydreams, sexual experiences, affectional patterns, unexpressed attractions, and emotional responses (Fontaine & Hammond, 1996).

Purpose

The purpose of this exploratory and mostly qualitative study was to examine the adolescent experience of high-ability GLB individuals, both male and female, through a retrospective look at school and family experiences from grades 5-12, in order to better understand the development of gifted GLB adolescents, to gain knowledge that might be helpful to educators and counselors of gifted GLB adolescents with high ability, and to illuminate areas that might warrant further study. It was not within the scope of this study to compare these individuals' experiences with those of non-GLB young adults, but rather to focus on the phenomenological experience of a particular group of individuals. In keeping with the grounded-theory methodology used in this study (Glasser & Strauss, 1967), the study sought to provide a perspective on behavior; to enable description, prediction, and explanation of behavior; to present findings usable in practical applications and understandable to practitioners; and to develop tentative hypotheses concerning the adolescent experience of being both gifted and GLB.

Participants

Participants were 18 young adults (6 females and 12 males), age 18-25, ethnicity unknown, who self-identified as both gifted and gay/lesbian/bisexual.

Gifted GLB individuals willing to be open about sexual orientation were difficult to access. The researchers decided that self-identification would be necessary. In addition, for a variety of reasons, participants would not be given criteria for giftedness, such as grade-point average, test scores, or identification for a special program. They would likely come from a wide variety of high schools, with similar GPAs potentially varying in meaning. It could not be assumed that participants would know their scores on intelligence tests; their schools might, in fact, not have conducted individual assessment; and their schools might not have identified gifted children for special programs. It appeared that not only was no common measure available for determining giftedness, but there would also be no way of ascertaining that participants met particular criteria. Recognizing the wide variety of ways the construct giftedness can be defined (Peterson, 1999), the study would nevertheless rely on participants' assessment of self in relation to peers in a university setting, if they had not been identified as gifted during the school years.

Instrument

Participants filled out a nonstandardized 10-page questionnaire containing 13 questions, each with several parts, for a total of 70 separate items (see Appendix). The questionnaire required 1-4 hours to complete. Approximately half of the questions were open-ended and were intended to generate narrative data. With rare exceptions, participants answered these questions at length. The other questions elicited yes or no or other brief responses. The questionnaire was developed with particular interest in respondents' perceptions of their own social, emotional, and sexual-identity development; of others' responses to them as they developed; and of giftedness as related to sexual identity. Current literature also informed the development of the questionnaire.

Method

Two researchers conducted the study. Participants responded to a mailing to GLB support groups at eight midwestern college or university campuses and to a presentation to one such large group at a highly selective institution. All of these contacts extended an invitation to gifted GLB individuals to participate in the study. Questionnaires were returned by mail.

Data were analyzed either quantitatively (yes/no responses and responses relating to age, grade level, or time interval), using percentages, or qualitatively (narrative responses), the latter process utilizing Glasser and Strauss's (1967) constant comparative method of qualitative analysis. The narrative responses were initially read by each researcher individually, with each questionnaire read as a unit, and with attention to general impressions. Responses were then organized so that all answers to each question were grouped together. These grouped

responses were then analyzed qualitatively by each researcher independently for themes, each using an inductive process by which "categories emerge" and "data emerge that fit an existing category" (Glasser & Strauss), and each using an independently created color-coding scheme. Subsequently, the researchers compared coding schemes and the themes that had emerged for each question and for the questionnaire in general. The various similarly coded language segments were then clustered according to developing themes and were continually reclustered and studied.

In all, the data underwent some degree of analysis six times, the last four analysis in the interest of regrouping into ever broader clusters and integrating themes in responses to individual questions with general questionnaire themes (e.g., the theme of danger, which was the specific focus of one question, but which also appeared in various forms at several other points in the questionnaire). The researchers experienced considerable agreement at each stage of the process, including identification of both major themes and clusters, although each researcher had independently also located particular minor strands, which became part of later clusters. "Disagreement" generally occurred only in terms of word choice for labeling themes and clusters and was not quantified.

Results

Differentness and Isolation

Themes of differentness and isolation emerged, with a variety of contributing factors articulated: social awkwardness, level of maturity, ability and interests, depression, and behavioral choice. Some specifically mentioned sexual orientation as contributing to social withdrawal, and a few indicated feelings of guilt and shame. One male "avoided parties, drinking, sex, etc., both for solid moral reasons and out of fear — at least discomfort." A female wrote, "I felt constantly alone — separated myself from my peers as a way of coping with the prejudice, name-calling, etc." One male's response noted a change during junior high: "In fifth grade I was generally pretty happy. I was stable. By eighth grade I was beginning to feel depressed and isolated." Another male commented about eighth grade:

> *I didn't fit in at all. Felt a lot of pain. I was constantly made fun of for being a "sissy," not being athletic, and not "fitting in" with the guys. I was suicidal in eighth grade because I felt like a sinner for finding other boys attractive. Guilt and shame were quite severe.*

Junior high meant change for yet another:

> *I was popular in fifth and sixth because I was smart. Really unpopular in seventh and eighth. I was in activities and had a few friends, but it was two of the worst years of my life socially. I actually was called Rocky — after Rock*

Hudson. That's when the rumors started.

One male reported,

I was called "Pussy" because of my lack of interest in sports. I was more interested in music and academics, which was looked down upon by many people. At times, I emotionally and socially felt kind of "out of it."

One said he was "an outcast." Another male's response is typical of those connecting feelings of alienation, isolation, pain, and differentness to sexuality: "It's very difficult to adequately articulate thoughts of sexuality at a young age. It also separates you from many other people your own age." Only one participant specifically connected differentness to being both gay and gifted: "I think to be labeled 'gifted' means to be labeled as 'different,' which is what being gay essentially is. To be both is an interesting interaction indeed."

School Issues

Positive and Negative Experiences Associated with Sexual Orientation. One question asked about positive and negative experiences associated with sexual orientation. One female's statement captures the general thrust of the positive comments: "[Teachers] validated sexual orientation as an important topic to explore and understand." Females also cited school newspapers and classrooms that invited discussion of GLB issues, such as gays the military, and one had had openly lesbian teachers. A female added an important note at the end of the questionnaire: "Surprisingly I've discovered not everyone's experiences were negative or painful." Males' positive comments all referred to experiences outside of school and included GLB support groups and a Sunday School unit about homosexuality.

Negative experiences did not always involve overt hostility. Some participants mentioned an uncomfortable classroom atmosphere or a perceived lack of support:

"My sexual orientation became an issue in debate class. I had to drop the class, and it kept me from joining other organizations in school."

"I was labeled a theater fag and never got male leads."

"Teachers squelched my desire to work with gay issues."

One participant cited the lack of information in school about safe sex, in light of the danger of HIV infection: "Health and wellness completely omitted all discussion of GLB health issues."

Danger. It should be noted here that five participants (28 percent) said they had felt no danger. However, supporting the considerable literature referring to hostility toward GLB students in school, most of the participants, 11 (61 percent) indicated that they had indeed felt danger — at school for 7 (39 percent). In regard to peers, a male commented, "Everywhere, in the halls between classes, in class, at lunch, before and after school, and at special school activities; the

potential for danger was always there." Another said, "On a trip one person claimed he'd never speak to, or would beat up, a best friend or cousin if he 'turned queer on him.' Made me wonder how a really 'out' person would fare at school."

Also reflecting the literature, some experienced the hostility of teachers. A junior high physical education teacher made a degrading comment about a male to his classmates: "I was horrified. At that moment I realized that my peers weren't the only people I had to fear, but males of all ages. I left school and cried the entire day." Another wrote, "Teachers assaulted me for being gay, and no one cared." A teacher began a rumor about one male participant and later apologized.

Depression and Self-Destructive Behavior

The danger also came from within. Fifteen (83 percent) reported bouts with depression during junior and senior high school, and 13 (72 percent) reported being suicidal at some point during that time, although 5 (28 percent) noted improvement in emotional stability after grade 10. One female had experienced depression from 4th-12th grade, and another "pondered suicide in middle school, but never formulated a plan." High school was the time of vulnerability for nine (50 percent), with six (33 percent) reporting depression in grade 9, five (28 percent) in grade 10, and seven (39 percent) in grade 11. A male wrote, "I was afraid that I'd never have a meaningful relationship with anyone and that I would grow old and die alone and unhappy." Regarding telling someone, 12 (80 percent) of the 15 who experienced depression discussed depression with someone, mostly with a friend, a counselor, or both. Only 5 (33 percent) of the 15 told parents, and none told teachers. As for suicide, 11 (85 percent) of the 13 who reported suicidal ideation discussed it with friends, a counselor, or both, none with teachers, and only 4 (31 percent) with parents. For 11 of the 18 participants (61 percent), talking was one of many proactive strategies for coping with low morale. A male said, "I immersed myself in activities or work. Often these became artistically productive times." A female said, "I've learned to cry; and I do this well and quite often."

Of the 14 (78 percent of participants) who experienced counseling, 11 (79 percent) perceived it as helpful. Counseling occurred mostly during the high school years, and it was mostly sustained or intermittent over a period of 1-4 years. Some of those for whom counseling was helpful reported the following:

"It gave me someone to open up to and sort out my feelings."

"I was able to solidify good relationships with people and learn coping strategies."

"First session — knowing that my sexuality didn't make me 'sick.'"

"I began to love myself again and gain confidence."

One wished the counselor "could have clued me in to just how many people there were out there just like me — or shared some issues (that) clients who had

come out to him had dealt with." Another wished the counselor had not "kept bringing up sexual orientation."

Sexual-Identity Formation

The age of first wondering about sexual orientation in this study supports the literature attesting to early awareness (e.g., Cantwell, 1997). Nine, exactly half, of the participants reported wondering about sexual orientation before leaving elementary school, with five (56 percent) of those nine noting sixth grade. Of the eight (44 percent) reporting junior or senior high awareness, four (50 percent) cited grades 8 and 9. All but one (94 percent of participants) reported awareness by grade 10, and that one person was aware in grade 12. In general, awareness was in the form of attraction, crushes, dreams, personal journal themes, and realizing these weren't "just a passing phase." Nine (50 percent) reported that they responded to their awareness with some behavior, such as becoming "ultra-hetero" ("It made me nervous and scared, and I threw myself into my relationship with my boyfriend."), depressed ("I started having suicidal thoughts for the first time."; "I was taught it was a sin and you would go to hell. I was quite depressed and wanted to end my life."), seriously anti-gay, or pouring energies into achievement. Two males (17 percent of male participants) quit sports out of fear of others or of their own feelings, and two more males reported that they feared peers during sports activities. Nine (50 percent of participants) were "OK" with the awareness. One male reported, "I filed it away in my consciousness. It was all wrapped up in the general curiosity/excitement/embarrassment of sexual discovery and puberty."

A minor theme of absence, rather than presence, of expected feelings emerged. Five males (42 percent of male participants) believed they had the "same feelings" as their peers, but had an absence of feelings for females ("I had tons of gay fantasies. I had no desire to date girls although I pretended to"; "I liked being with girls, but I had no desire to be with them physically. I found boys quite exciting and found them physically beautiful."). Several noted that their awareness was not a great concern prior to puberty: "I learned it was 'normal' for boys to wonder, and many experimented together around this age, so I thought it was OK as long as I liked girls, too. Wasn't too big of an issue for a couple years."

Regarding sexual identity, there was much self-analysis, perceived pressure, fear, and either-or thinking reported The following experiences of males reflect various combinations of these:

> *I got tendonitis because I was trying to prove everything (my sexuality, my self-worth) by how well I played the cello, and consequently, was very tense. When I stopped concentrating on cello, it freed up a lot of time to concentrate on my sexuality. This led to a bravura attempt to think myself into one orientation or the other. Being a really all-or-nothing person back then, I thought I had to be perfectly gay or perfectly straight. This, of course, led to a depend-*

ence on living up to stereotypes in order to define who I was.

I can't believe how long I actually believed that gays are supposed to be effeminate, speak with a lisp, not like sports, be always thinking about sex! What a massive form of thought control! I have been fortunate [in college] to meet some non-stereotypical gays who have been good role models for me.

I didn't know being bisexual existed, so I was tumultuous over being just straight or gay. Incredibly indecisive, tons of anxiety as I got older, especially toward my father. I wanted to impress him, but we didn't like the same things or value the same things.

I had no role models. Had to create them in my mind. Had to learn what gay was and then unlearn it, as society's stereotypes didn't fit with my personal expectations or desires.

A female worried, "I felt I couldn't have a real identity unless I labeled myself."

Other Aspects of Development

Growth and Maturity. In general, and in retrospect, development was difficult. The following comment reflects the impact of sexual-identity issues on growth and maturity: "Other kids got to have boyfriends and girlfriends and relationships that helped them mature and grow socially. Most gay youth are deprived of this." A particularly powerful comment summarizes the sexual-social interaction: "The difficulty is seriously compounded by the suspicion that the person you may be becoming will not be readily accepted by family, friends, and education."

Achievement. Academically, 14 (78 percent) were high achievers throughout school, and a major theme involved academic success as "balance" or "outlet." A male reported, "[I was] stable, but confused. [I] repressed a lot and focused on academics and activities to substitute for vulnerability, feelings, and experiences." Four other males said they were extreme achievers:

"Top of my class, hyper-involved in extra-curriculars. Since then, I've suspected much of that was avoiding dealing with orientation and socialization issues. In structured activities, I was safe."

"My retarded romantic and sexual development left a gap, which activities filled. High drive to succeed in measurable ways."

"I desperately needed something to excel at, and academics took its logical place as that thing. It was something I could always hold over everyone's head. I excelled."

"I always gave 150 percent to any school project. I was the definition of overachiever! It was important for me to impress my teachers and show up my classmates. Since I wasn't good at sports, I had to compensate!"

In contrast, one male considered dropping out of high school three times, and a female dropped out of school and then returned, ultimately graduating as an honor student. All four (22 percent) who were underachievers in high school became achievers in college.

Social Development. In general, high school was better socially than junior high, with improved relations for 12 (67 percent) of the 18. A female wrote, "Got more confident. Not sure exactly why. Volunteered at a hospital and got a job." Being a self-described extrovert and being involved in extracurricular activities helped several, and one female and one male found nonlocal friends through nonschool activities. Attending a summer scholars academy helped one male. However, as mentioned earlier, nine (50 percent) experienced depression during high school, one male experienced social rejection in 11th grade when he came out, and a few reported drug use. One female didn't want to date until she had figured out her sexual orientation, and another reported, "[I was] a wreck, always depressed, at times suicidal. It always seemed to be on my mind. I made two serious attempts. My emotional state was made worse by my attempts to hide it."

Awareness of same-gender attraction by grade 11 for 17 (94 percent) did not necessarily mean "being convinced" that they were GLB. However, 12 (67 percent) reported being convinced by grade 11, with grades 10 or 11 marking that turning point for 8 (44 percent) of the participants. Subsequently, of the 12 who were convinced in high school (but not necessarily "out"), 10 (83 percent) experienced negative effects on school life, and 6, (50 percent) felt that home communication was negatively affected — generally females with their mothers and males with their fathers. Three males reported the following:

"I became a big pile of anxiety, especially with my father. I never wanted to be home."

"I felt as if he wanted a 'son,' and I hadn't fulfilled his wishes."

"As I realized it wasn't a phase, that I was different, I could hardly be alone with him. We worked together on the farm, and it weighed heavy on me."

With peers, four (33 percent) of the 12 who became convinced in high school felt they went "downhill socially," while 7 (58 percent) reported being "OK" socially, with several continuing to pass as straight. With best friends, half reported no change, while two (17 percent) experienced a negative effect on the relationship. One female's best friend "said it was cool, but then stopped talking. I bought her a book about it, and then I became her token gay friend. She'd show me off. We no longer talk." A male explained, "I suppose I had mild crushes on a couple friends which were under the sexual threshold — expressed as intense loyalty, interest, joy " Another said, "I did what I could to prove I wasn't gay to them — locker room talk, experimenting with women. They never suspected anything." Another "had many girlfriends."

For seven (39 percent), "no one knew." One male remarked that not being effeminate helped him pass as heterosexual. Another reflected success with a common adolescent concern: "I wanted everyone to like me." A female said she

"ended up dating a lot of men and insisting on my heterosexuality. I didn't come out or talk about it." In general, school became uncomfortable for several. One male became an expert at jokes and nervous laughter in his "homophobic all-male school," as he described it, repressed his feelings, and feared looking at anyone in the locker room. Another male quit sports and "didn't associate with guys too much other than really surface things. I was scared I might like them." Being convinced precipitated other varied responses as well:

"Grades suffered. I didn't know if I would be able to stay in school, knowing that I was gay."

"Always felt a need to try and become straight. I was oversensitive to comments by classmates. I felt oppressed at school and was absent frequently."

"If anyone had found out, I would have immediately killed myself. I drew away from people, became shy so they wouldn't notice my effeminacy."

One male "liked to befriend people who weren't as popular."

Special Needs as Gifted Adolescents. Addressing an area not unrelated to development, the questionnaire also asked whether high ability had created unique needs in them as GLB persons and whether they believed that hypersensitivity had been a factor during their adolescence. There was considerable reference to hyperawareness of labels, homophobia, reactions of others, and fear of the future. Regarding unique needs, one participant reported, "It narrowed the field of people I can relate to." Some reported a need to pursue information, and one worried about the effect of sexual orientation on career. One male said, "Sometimes I have felt overly competitive in terms of achievement, perhaps as a compensation for feeling inadequate or not accepted by society." Another commented, "My successes made me high profile and even more reluctant to explore a possibly scandalous sexuality."

The questionnaire also asked how participants had used their intelligence to enhance their lives and/or relate to society as a GLB person. Most felt they had used their intelligence proactively — writing, being politically active, being creative, being able to use humor and irony, reading and being informed, being able to "shift perspectives," and being able "to spar, debate, and argue with the most adroit gay basher."

Coming Out

Only one individual came out during junior high, and only four (22 percent) came out during high school. The incidence of depression during high school and the coming out at age 18 or beyond for 13 (72 percent) suggest that the coming-out process was preceded by stress and depression and that coming out occurred for most at the time of leaving home. Subsequently, there was less reported depression. Regarding coming out, parents of six (33 percent) were supportive, either initially or after some adjustment. Some parents "cried" or were "shocked" or "frightened." Some reacted with silence, the silence often continuing to the present. About the process for the family, one wrote, "It takes

time." Siblings varied greatly in responses.

Peers were supportive for 11 (61 percent). A male commented, "I have been blessed with an extraordinarily strong network of peer support. Totally nonjudgmental and accepting." Several mentioned finding comfort in close friendships with the other gender during this period, including one female who said, "My best friends turned out to be gay guys." However, one male wrote, "I had to move away from everyone I knew to begin coming out." A 25-year-old male reported, "I have yet to come out to my high school friends."

Eleven (61 percent) reported having good relationships since high school. GLB support groups in college became a place for unconditional acceptance and enhanced self-esteem for almost all. A male wrote, "If it hadn't been for college I would not be alive. I was at a critical point. College was my last hope."

Strategies for Support

In response to a question about what educators should understand about the school experiences of GLB adolescents, three comments are typical:

"Know there's so much going on in their heads."

"They need role models."

"There is almost no support for coming out of the closet."

Most respondents instead gave specific suggestions to educators:

1. "Let them know they're OK." "Let them know they are not 'bad,' 'evil,' 'sick.'"

2. "Let them know they're not alone. To have known even one gay person would have helped, or to have had famous or respected people come out of the closet, or to have had the gay-friendly movies of the last few years"; "I wish I had had a couple of other gays I could ask the questions I had"; "When students read Tennessee Williams, mention his sexuality, if for no other reason than to know it's out there."

3. "Entertain the reality of gayness more. I wish all educators could look out at a classroom with an understanding that there probably are GLB students — who are proud, scared, confused, in love with someone of the same gender, lonely."

4. "Be alert to the possibility that sexual orientation may be the reason for someone's being suicidal, being involved with substance abuse, or dropping out."

5. "Treat them with compassion. They have rough lives. It's amazing any of them survive."

6. "Never show disappointment or dismissal of youths' sexual feelings."

7. "Challenge their over involvement. I suppose I was such a model student that they didn't feel an urge to change anything."

8. "Ask, 'Is my classroom safe, respectful?'"

9. "Stop the name-calling in the classroom. Say something!"

The questionnaire asked whether gifted education should give attention to GLB issues. All participants supported that focus. The following comments are typical and thought-provoking:

"Gifted education, in my experience, has been open to controversial issues. Therefore, it seems there would be room to explore these issues."

"I think gifted education would be a good place to explore sexuality concerns because of the greater ability of students to think through the subject."

"Gifted GLB students who aren't secure in themselves are at great risk for suicide and other emotional problems. Not everybody had the liberal, confidence-raising family that I did."

"Many people who realize their homosexuality at a young age are gifted."

"There are a lot of us."

Discussion

Even for mainstream adolescents, normal developmental tasks can be complex and difficult. For GLB adolescents, meeting developmental challenges is particularly lonely and daunting, according to this study. For almost all in this study, problems with identity development affected sense of self and were associated with depression, which in turn affected social relationships. Social discomfort was associated with isolation for many, and "wondering," even before leaving elementary school, precipitated social uneasiness for many.

The process that eventually led to coming out was fraught with anxiety for most. However, facing the perceived, and probably real, possibility of rejection by family as a result of revelations about sexual orientation may have contributed to earlier-than-expected differentiation from family: GLB young people had soberly faced the prospect of a life apart from them. In general, these participants survived alone, with no role models, no GLB peers, and no one or very few with whom they could share their feelings and thoughts, especially during the years of "wondering," but also after being convinced of sexual orientation. With so much that was hidden and so much silence, there was risk: depression and suicidal ideation, dropping out of school, and substance abuse. On the other hand, many of these participants appeared to have developed resilience through their intense struggles during adolescence and, as young adults, expressed optimism about the future. It should be noted that none reported negative effects of self-described "over involvement" in activities as they compensated for discomfort and perceived deficiency, although one advised educators to challenge such involvement.

It is difficult to ascertain to what degree the intersection of gayness and giftedness complicated these participants' lives. Few alluded to their high ability when responding to questions concerning social and emotional development.

However, specific questions about ability in terms of coping, hypersensitivity, special needs, and attention to sexual orientation in gifted education elicited a great amount of narrative. Nevertheless, parallels should be drawn between gayness and giftedness only cautiously in terms of sense, of differentness, various developmental issues, and threats to well-being. Both factors may be stigmatized, in some contexts more than others, and both have the potential for contributing to difficulties. Being both gifted and gay means being doubly different, if not more so, with each quality potentially exacerbating the difficulties associated with the other. Yet, according to both the existing literature and to the data here concerning the safety of GLB individuals and the effects of a GLB sexual identity on social and emotional development, it is unwise to consider giftedness and gayness as equally problematic, no matter how atypical those in either category are in the general population. In spite of that caution, however, it is important to consider how gayness affects the social and emotional development of gifted individuals amid the demands of adolescent development. Whether a gay-gifted intersection doubly warns against expressing abilities, or whether consequent anxiety contributes to extreme school involvement and achievement, it should be recognized that the authentic self may be hidden — at great personal cost.

None of these participants talked to a teacher about depression or thoughts of suicide as adolescents, and few talked to parents. These findings raise questions for both educators in general and educators of the gifted. Do gifted GLB children and adolescents have too much invested in an image of competence and achievement to reveal vulnerabilities? Are teachers seen as interested only in curriculum, academics, and productivity? In addition, how can educators, school counselors, and parents explore sexuality and sexual orientation with youth at enough length that young people will be able to approach these subjects with a significant adult when they have questions and concerns? The findings here argue for staff development in listening and responding skills. Several suggestions offered by the participants in this study could serve as directions for in-servicing educators, crucial in meeting the needs expressed in this study. Current research should also be incorporated, especially regarding threats to the well-being of GLB adolescents. Given how few had come out during high school in this study, attention to affective concerns of all gifted students (and all students) in small-group discussion (cf. Peterson, 1990) can help to build a supportive climate for expressing developmental concerns. Visible literature related to GLB concerns in counseling or gifted-program offices might also be helpful.

Essentially, short- and long-term policies and strategies intended to move the general school climate toward acceptance and support of GLB students are crucial. It is certainly important to recognize that proactive stances by educators often involve risk for them in terms of response from school constituencies. According to this study, however, inaction may be life-threatening for GLB students. Courageous educators are needed to create a safer climate in schools.

Participants' practical suggestions, for example, regarding teachers' squelching of homophobic comments in the classroom and acknowledging the sexual orientation of GLB literary and historical figures represent important directions in this regard. Even in contexts where open advocacy is perceived to be dangerous, following the participants' admonitions may not only be possible, but also important in creating a school climate of safety, compassion, and appreciation for diversity. Curricular and other formal instruction, using either or both cognitive and affective approaches, has also been recommended (e.g., Butler, 1994; Sears, 1991).

Limitations and Conclusions

It is possible that those who had had successful counseling experiences and who were confident in their ability to express their thoughts were most likely to participate in this study, especially given the length and nature of the questionnaire. The number of participants is small, with only one-third of them female. They were also all "out" enough to have received the questionnaire through a university support group, and involvement in such a group may make the findings here nonrepresentative of GLB young adults in general. All of these factors limit the ability to generalize from these findings. It should be noted, however, that these findings, the result of a postpositivistic mode of inquiry, are not necessarily meant to reflect beyond these particular participants. The "task is exploration — and sometimes discovery — of emerging structures" (Glasser & Strauss, 1967). The findings here certainly underscore the presence, needs, and concerns of these self-identified gifted GLB adolescents and offer areas for further exploration. In addition, the findings "can be used to speak to or to help form a judgment about other situations" (Eisner & Peshkin, 1990), in this case, other GLB adolescents in other locations.

The participants themselves specifically indicated several topics worthy of further study when asked what questions should have been included on the questionnaire. Substance abuse among GLB adolescents, dropping out of school, the first sexual experience, and the role of the church in coming out were cited as areas about which these high-ability GLB individuals wished they had been asked to comment. It is unknown whether the respondents were simply curious about these topics, already knew these areas were significant concerns among GLB individuals, or wanted educators to be informed about these concerns. Regardless, these areas represent potential research areas regarding gifted GLB adolescents, including dropping out, given the fact that two here had dropped out of high school and others had contemplated it.

These high-ability, participants expressed a need for information as adolescents about sexual development, homosexuality, health concerns, depression, and the complex coming-out process. They needed discussion. The high incidence of depression and suicidal ideation and the fact that few parents and no teachers were informed about these subjects point to a need for attention to

affective concerns in gifted programs, including enough discussion of sexual orientation to indicate that it is at least a topic worthy of discussion. Almost all participants reported a sense of alienation and isolation at some point. Many mentioned not knowing any other GLB individuals during adolescence. There is undoubtedly added danger in perceiving no supportive peer culture to be "without a place" when affirming sexual orientation or when beginning to differentiate from parents. Future studies can focus on these and other developmental issues. Findings in this study can contribute to increased understanding of gifted GLB youth and enhance educators' ability to help them not only to survive adolescence, but also to have satisfying and interpersonally connected lives during that complex developmental stage

References

Anderson, D. (1987). Family and peer relations of gay adolescents. *Adolescent Psychiatry,* 14, 162-178.

Baker, S., & Campbell, C. A. (Eds.). (1998). Sexual minority youth and the school counselor: The challenges of a hidden minority (Special Issue). *Professional School Counseling,* 1(3).

Baldauf, S. (1997, September 29). More schools take up gay-bias issues. *The Christian Science Monitor,* 4.

Bart, M. (1998). Creating a safer school for gay students. *Counseling Today,* 41(3), 26, 36, 39.

Ben-Ari, A. (1995). Coming out: A dialectic of intimacy and privacy. *Families in Society: The Journal of Contemporary Human Services,* 76, 306-314.

Benvenuti, A. C. (1986, November). *Assessing and addressing the special challenge of gay and lesbian students for high school counseling programs.* Paper presented at the 65th Annual Meeting of the California Educational Research Association, San Jose, CA. (ERIC Document Reproduction Service No. ED 279 958)

Bohan, J. S. (1996). Teaching on the edge: The psychology of sexual orientation. *Teaching of Psychology,* 24(1), 27-32.

Borhek, M. V. (1993). *Coming out to parents: A two-way survival guide for lesbians and gay men and their parents.* Cleveland, OH: Pilgrim Press.

Boxer, A. M. & Cohler, B. (1989) The life course of gay and lesbian youth: An immodest proposal for the study of lives. *Journal of Homosexuality,* 17, 315-346.

Bradish, C. (1995). Therapeutic programming for gay and lesbian youth: How experiential education can support an at-risk population. *Journal of Experiential Education,* 18, 91-94.

Bridget, J., & Lucille, S. (1996). Lesbian Youth Support Information Service (LYSIS): Developing a distance support agency for young lesbians. *Journal of Community & Applied Social Psychology,* 6, 355-364.

Butler, K. L. (1994, November). *Prospective teachers' knowledge, attitudes, and behavior regarding gay men and lesbians.* (Technical Report No. 143). Kent State University, OH. (ERIC Document Reproduction Service No. ED 379 251).

Cantwell, M. A. (1997). *Homosexuality: The secret a child dares not tell.* San Rafael, CA: Rafael Press.

Cass, V. C. (1979). Homosexual identity formation: A theoretical model. *Journal of Homosexuality,* 4, 219-235.

Colangelo, N., & Brower, P. (1987). Labeling gifted youngsters: Long-term impact on families. *Gifted Child Quarterly,* 31, 75-78.

Coleman, E., & Remafedi, G. (1989). Gay, lesbian, and bisexual adolescents: A critical challenge to counselors. *Journal of Counseling and Development,* 68, 36-40.

Cornell, D. (1984). *Families of gifted children.* Ann Arbor, MI: UMI Research Press.

Cramer, D. W., & Roach, A. J. (1988). Coming out to Mom and Dad: A study of gay males and their relationships with their parents. *Journal of Homosexuality,* 15, 79-91.

Cranston, K. (1992). HIV education for gay, lesbian, and bisexual youth: Personal risk, personal power, and the community of conscience. *Journal of Homosexuality,* 22, 247-259.

Cross, T. L., Coleman, L. J., & Stewart, R. A. (1995). Psychosocial diversity among gifted adolescents: An exploratory study of two groups. *Roeper Review,* 17, 181-185.

Cross, T. L., Coleman, L. J., & Terharr-Yonkers, M. (1991). The social cognition of gifted adolescents in schools: Managing the stigma of giftedness. *Journal for the Education of the Gifted,* 15, 44-55.

Dahlheimer, D., & Feigal, J. (1991). Gays and lesbians in therapy: Bridging the gap. *The Family Therapy Networker,* 15, 44-53.

deMonteflores, C., & Schultz, S. J. (1978). Coming out: Similarities and differences for lesbians and gay men. *Journal of Social Issues,* 34, 59-72.

Dunham, K. L. (1989). *Educated to be invisible.* (ERIC Document Reproduction Service No. ED 336 676).

Edwards, W. J. ((1996). A sociological analysis of an invisible minority group: Male adolescent homosexuals. *Youth & Society,* 27, 334-355.

Eisner, E. W. & Peshkin, A. (1990). *Qualitative inquiry in education: The continuing debate.* New York: Teachers College Press.

Elia, J. P. (1993). Homophobia in the high school: A problem in need of a resolution. *High School Journal,* 77, 177-185.

Evans, N., & Levine, H. (1990). Perspectives on sexual orientation. In L. V. Moore (Ed.), *Evolving theoretical perspectives on students.* San Francisco: Jossey-Bass.

Farrell, D. M. (1989). Suicide among gifted students. *Roeper Review,* 11, 134-139.

Ferguson, W. E. (1981). Gifted adolescents, stress, and life changes. *Adolescence,* 16, 973-985.

Fontaine, J. H. (1998). Evidencing a need: School counselors' experiences with gay and lesbian students. *Professional School Counseling,* 1(3), 8-14.

Fontaine, J. H., & Hammond, N. L. (1996). Counseling issues with gay and lesbian adolescents. *Adolescence, 31,* 817-830.

Friedrichs, T. (1997). Understanding the educational needs of gifted gay and bisexual males. *Counseling & Guidance,* 6(3), 3, 8.

Gibson, P. (1989). Gay male and lesbian suicide. In M. R Reinleib (Ed.), *Report of the secretary's task force on youth suicide* (pp. 3-110-3-137). Washington, DC: U.S. Government Printing Office. (DHHS Pub. No. 89-1622)

Glasser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New York: Aldine.

Griffin, P. (1994). Homophobia in sport: Addressing the needs of lesbian and gay high school athletes. *High School Journal,* 77, 80-87.

Hammelman, T. L. (1993). Gay and lesbian youth: Contributing factors to serious attempts or considerations of suicide. *Journal of Gay and Lesbian Psychotherapy, 2,* 77-89.

Hanckel, F., & Cunningham, J. (1976). Can young gays find happiness in YA books? *Wilson Library Bulletin, 50,* 528-534. (ERIC Document Reproduction Service No. ED EJ 134 772)

Harbeck, K. M. (1994). Invisible no more: Addressing the needs of gay, lesbian, and bisexual youth and their advocates. *High School Journal,* 77, 169-176.

Hayes, M. L., & Sloat, R. S. (1989). Gifted students at risk for suicide. *Roeper Review, 12,* 102-107.

Herdt, G. (1989). Introduction: Gay and lesbian youth: Emergent identities and cultural scenes at home and abroad. *Journal of Homosexuality,* 17, 1-41.

Hershberger, S. L., Pilkington, N. W., & D'Augelli, A. R. (1997). Predictors of suicide attempts among gay, lesbian, and bisexual youth. *Journal of Adolescent Research,* 12, 477-497.

Hetrick, E. S., & Martin, A. D. (1987). Developmental issues and their resolution for gay and lesbian adolescents. *Journal of Homosexuality,* 14, 25-42.

Hewitt, F. L., Newton, J., Flett, G. L., & Callander, L. (1997). Perfectionism and suicide ideation in adolescent psychiatric patients. *Journal of Child Psychology,* 25, 95-101.

Hodges, E. V., Malone, M. J., & Perry, D. G. (1997). Individual risk and social risk as interacting determinants of victimization in the peer group. *Developmental Psychology,* 33, 1032-1039.

Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior in the human male.* Philadelphia: W B. Saunders.

Kissen, R.M. (1993). Listening to gay and lesbian teenagers. *Teaching Education,* 5(2), 57-68.

Kottman, T., Lingg, M., & Tisdell, T. (1995). Gay and lesbian adolescents: Implications for Adlerian therapists. *Individual Psychology: Journal of Adlerian Theory, Research & Practice, 51,* 114—128.

Lenhardt, A. M. C. (1997). Disenfranchised grief/Hidden sorrow: Implications for the school counselor. *The School Counselor, 44,* 264-270.

Lock, J. (1998). Treatment of homophobia in a gay male adolescent. *American Journal of Psychotherapy, 52,* 202-212.

Lovecky, D. V (1992). Exploring social and emotional aspects of giftedness in children. *Roeper Review,* 15, 18-24.

Mahoney, A. S. (1998). In search of the gifted identity: From abstract concept to workable counseling constructs. *Roeper Review, 20,* 222-226.

McCarthy, C. J., Brack, C. J., Laygo, R.M., Brack, G., & Orr, D. P. (1997). A theory based on investigation of adolescent risk behavior and concern about AIDS. *The School Counselor, 44,* 185-197.

McClintock, M. K., & Herdt, G. (1996). Rethinking puberty: The development of sexual attraction. *Current Directions in Psychological Science,* 5(6), 178-183.

McFarland, W. P. (1998). Gay, lesbian, and bisexual student suicide. *Professional School Counseling, 1(3), 26-29.*

Omizo, M. M., Omizo, S. A., & Okamoto, C. M. *(1998).* Gay and lesbian adolescents: A phenomenological study. *Professional School Counseling, 1(3), 35-37.*

Peterson, J. S. (1990). Noon-hour discussion: Dealing with the burdens of capability. *Gifted Child Today, 13(4), 17-22.*

Peterson, J. *S.* (1999). Gifted — through whose cultural lens? An application of the postpositivistic mode of inquiry. *Journal for the Education of the Gifted, 22, 354-383.*

Piechowski, M. M. (1997). Emotional giftedness: The measure of intrapersonal intelligence. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (pp. 366-381). Boston: Allyn and Bacon.

Poppenhagen, M. P. & Qualley, R. M. (1998). Adolescent suicide: Detection, intervention, and prevention. *Professional School Counseling,* 1(4), 30-36.

Ritter, K. Y., & O'Neill, C. W. (1989). Moving through loss: The spiritual journey of gay men and lesbian women. *Journal of Counseling and Development,* 68, 9-15.

Roeper, A. (1997). Sexual development in gifted children. *Counseling & Guidance,* 6(3), 1, 4, 9.

Ross, M. W. (1989). Gay youth in four cultures: A comparative study. *Journal of Homosexuality,* 17, 299-314.

Rotheram-Borus, M. J., Hunter, J., & Rosario, M. (1994). Suicidal behavior and gay-related stress among gay and bisexual male adolescents. *Journal of Adolescent Research,* 9, 498-508.

Savin-Williams, R. C. (1990). Gay and lesbian adolescents. *Marriage and Family Review,* 14, 197-216.

Savin-Williams, R. C. (1994). Verbal and physical abuse as stressors in the lives of lesbian, gay male, and bisexual youths: Associations with school problems, running away, substance abuse, prostitution, and suicide. *Journal of Consulting & Clinical Psychology,* 62, 261-269.

Schneider, M. (1989). Sappho was a right-on adolescent: Growing up lesbian. *Journal of Homosexuality*, 17, 111-130.

Schneider, M. S., & Tremble, B. (1986). Training service providers to work with gay or lesbian adolescents: A workshop. *Journal of Counseling & Development,* 65, 98-99.

Schwartz, W. (1994). Improving the school experience for gay, lesbian, and bisexual students. Washington, DC: Office of Educational Research and Improvement. (ERIC Document Reproduction Service No. ED 377 257)

Sears, J. T. (1991). Depicting the fluidity of sexual behavior and identities. *Education Digest,* 57(4), 53-55.

Singerline, H. (1994). OutRight: Reflections on an out-of-school gay youth group. *High School Journal,* 77, 133-137.

Sowa, C. J., & May, K. M. (1997). Expanding Lazarus and Folkman's paradigm to the social and emotional adjustment of gifted children and adolescents (SEAM). *Gifted Child Quarterly,* 41, 36-43.

Sullivan, T., & Schneider, M. (1987). Development and identity issues in adolescent homosexuality. *Child and Adolescent Social Work,* 4(1), 13-24.

Sumara, D. (1993). Telling tales of surprise. In W. F. Pinar (Ed.), *Queer theory in education* (pp. 197-219). Mahwah, NJ: Erlbaum.

Tolan, S. S. (1997). Sex and the highly gifted adolescent. *Counseling & Guidance,* 6(3), 2, 5, 8.

Uribe, V. (1994). The silent minority: Rethinking our commitment to gay and lesbian youth. *Theory into Practice,* 33, 167-172.

Uribe, V,.& Harbeck, K. M. (1992). Addressing the needs of lesbian, gay, and bisexual youth: The origins of project 10 and school-based intervention. *Journal of Homosexuality,* 22, 9-27.

Waldner-Haugrud, L. K., & Magruder, B. (1996). Homosexual identity expression among lesbian and gay adolescents. *Youth & Society,* 27, 313-333.

Webb, J. T., Meckstroth, E. A., & Tolan, S. S. (1982). *Guiding the gifted child: A practical source for parents and teachers.* Dayton, OH: Ohio Psychology Press.

Weisse, D. E. (1990). Gifted adolescents and suicide. *The School Counselor,* 37, 351-358.

Zera, D. (1992). Coming of age in a heterosexist world: The development of gay and lesbian adolescents. *Adolescence,* 27, 849-854.

Author Note

This study was supported through a faculty research grant by Truman State University (MO).

Appendix
Questionnaire Items (presented here in an altered format)

Age _____ Gender _____
Years of formal education _____
Current status re: career/job/school

---

1. What was your experience during grades 5-8 in school
socially?
emotionally?
academically?
What was your experience during grades 9-12 in school
socially?
emotionally?
academically?
Were you identified as "gifted"?

2. When did you begin to wonder about your sexual orientation?
What led you to wonder about your sexual orientation?
Did you talk with anyone about this when you first wondered about it?
If yes, with whom? If yes, what was his/her response?
Did your wondering about this affect your life at this point?
If yes, how?

3. When were you convinced that you were gay/lesbian/bisexual?
Did that realization affect your life at school? If yes, in what way(s)?
Did it affect your life at home? If yes, in what way(s)?
Did it affect your relationship with your mother? If yes, in what way(s)?
With your father? If yes, in what way(s)?
With your peers? If yes, in what way(s)?
With your best friend(s)? If yes, in what way(s)?
Did you ever feel in danger because of your sexual orientation?
If yes, in what circumstances?
What were some classroom or school extracurricular experiences that you associate with your sexual orientation, positively or negatively (for example, as offering support, as contributing to discomfort, as seeming inappropriate, as helpful)?

4. Do you believe you (have) developed coping strategies to help you in regard to living as gay/lesbian/bisexual during adolescence (and/or later in your life)? If yes, please cite.

5. Have you had any counseling at any time? If yes, when? If yes, for how long?
If you had counseling, was it helpful? If yes, what was helpful?
If you had counseling, did you discuss your sexual orientation with the counselor?
If you discussed sexual orientation, what was the general approach/attitude of the counselor in this regard?
Do you have any suggestions as to how the counselor could have been more helpful?

6. When (if ever) did you "come out" to family?
What were (have been) their reactions(s)?
When (if ever) did you "come out" to friends?
What were (have been) their reactions?
Who (of family, friends) has been supportive?

7. Some theorists have claimed that gifted individuals are hypersensitive to their environment, to feelings, to relationships, and to success/failure/transitions/losses/change.
If those theorists are correct, what kind of impact might that hypersensitivity have had on your experience as a gay person during your school years? (If you don't

support these theorists' view, simply ignore this question.)
Do you believe your high ability has created particular (relative to the rest of the population) needs for you, especially as a gay person? If yes, in what ways?
How have you used your intelligence (intellect, social intelligence, etc.) to enhance your life and/or relate to society as a gay person?

8. Did you experience (have you experienced) depression during your school years?
If yes, for how long?
If yes, did you ever discuss those feelings with anyone?
If yes, with whom?
Did you ever consider suicide?
If yes, when?
If yes, did you ever discuss those thoughts with anyone?
If yes, with whom?
If you experienced "low" times, what strategies were helpful in coping with them?

9. Do/Did you attend college?
If yes, what were (have been) some of your experiences during that time in regard to gaining self-understanding, finding support, finding a niche in life, finding direction, etc.?
If you have attended college, has your college experience been (was your experience) mostly positive or mostly negative socially? Academically?

10. What do you wish your elementary, middle school, or high school teachers/coaches/administrators had understood about you?
In general, what do you think educators and counselors should understand about the school experience of adolescents who are gay/lesbian/bisexual?
What would have helped your precollege school experiences, in regard to sexual-orientation issues and concerns?
What kind of information and training do you think educators should have in order to be what gay adolescents need them to be?

11. Do you think gifted education should focus (at least to some extent, e.g., in individual sessions) specifically on the "gifted and gay" theme at conferences for educators?
If yes, why? (If not, why not?)

12. Have you been able to have satisfying, stable relationships since high school?

13. What questions do you think should have been part of this questionnaire and weren't — i.e., what are some concerns (particularly related to the adolescent/young-adult experience) about which you wish someone would ask?

Additional thoughts, concerns, feedback:

The Mensa Awards for Excellence in Research

Mensa Awards for Excellence in Research are given each year to scientists who have published outstanding research papers in peer-reviewed professional journals. This world-wide competition is sponsored jointly by the Mensa Education and Research Foundation and Mensa International, Ltd.

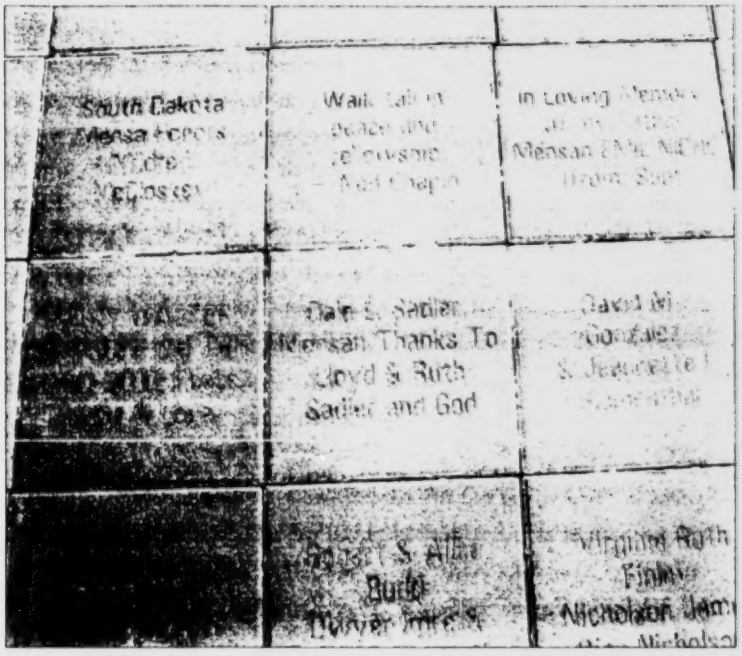
Typically, half the awards are given to established, senior scientists and half to researchers who have, in the past five years, entered into research into the nature of human intelligence or giftedness, education for the intellectually gifted, etc. Eligible fields of research have included psychology, education, sociology, neurology, physiology, biochemistry, and psychometrics.

Each award consists of $500 and a certificate. Many of the winning articles are reprinted in the *Mensa Research Journal*.

Judging is done by the joint American Mensa, Ltd./Mensa Education and Research Foundation Research Review Committee.

For additional information about how to enter a paper into this competition, write to MERF, Awards for Excellence in Research, 1229 Corporate Drive West, Arlington, TX 76006, USA.

Commemorate a Person or Event



Buy a Brick in the Walk of the Minds

The Mensa Education and Research Foundation offers opportunities to participate in the Walk of the Minds, a path of bricks commemorating special events and people.

The brick path graces the front entrance of American Mensa's National Office in Arlington, Texas.

For more information on how to purchase a brick, visit the MERF Web site at merf.us.mensa.org (click on Donations, then Walk of the Minds). You may also contact Jill Beckham at the National Office, 817/607-0060 ext. 123, or email her at JillB@AmericanMensa.org.

MERF is a 501(c)3 organization and contributions are tax deductible as specified by the IRS.

BEST COPY AVAILABLE

Respect for Peers with all Levels of Ability

John F. Feldhusen, Purdue University

Abstract

The problems of elitism and arrogance among gifted youth was first discussed by Leta Hollingworth under the extremely pejorative phrase "learning to bear fools gladly." In this research, an attempt was made to assess how gifted youth see themselves and their own abilities in relation to and interaction with other youth. A new scale was developed and factor analyzed. It yielded three factors, tentatively identified as: 1. I am a good thinker, 2. Some kids are not good thinkers, and 3. Impatience with poor thinkers is a problem for me. The results indicate that gifted youth do see themselves as superior thinkers, but nothing in the results suggest arrogance or intolerance of less able thinkers.

In spite of strong criticism of its elitist characteristics and potential to foster arrogance in "gifted" youth by Sapon-Shevin (1994), Oakes (1985), and Richert (1997), the field of "gifted education" continues to carry out identification processes that clearly discriminate between the "truly gifted" and the supposedly "ungifted" and offers curricula and instruction supposedly differentiated for the gifted. Since the curriculum and instruction in gifted programs is most often of an enrichment nature and evidence is rarely offered by advocates for the gifted of its unique inappropriateness or ineffectiveness for non-gifted students, justification for offering it to the gifted and withholding it from the non-gifted is not forthcoming. These conditions may set the stage for the development of arrogance and haughtiness in some identified gifted youth, a condition addressed by advocates of gifted education. However, in her excellent book on teaching gifted students in the regular classroom, Parke (1989) addresses this issue:

> *Some gifted and talented students have been accused by their peers of being arrogant and snobbish. Students complain that the gifted students feel they are better than the others and that they try to inflict their will on others (p. 211).*

The problems of elitism and arrogance are sometimes thought to arise chiefly in highly gifted youth such as those with whom Hollingworth worked at Hunter College in the early part of the 20th century (1942). Under the heading "Learning to Suffer Fools Gladly" in her book about children with IQs above 180 she says:

> *A lesson which many gifted persons never learn ...is that human beings in general are inherently different from themselves in thought, in action, in general intention, and in interest. Failure to learn how to tolerate ...the foolishness of*

others leads to bitterness, disillusionment, and misanthropy (p 259-260).

Richert (1997) criticizes gifted education on the grounds that (1) elitist definitions of giftedness prevail in the field (2) and most programs, by design, encourage elitism among identified youth and as they are viewed by other students. Richert is particularly critical of the field of gifted education because of its systematic exclusion of minority, poverty, ESL (English as Second Language), and underachieving youth and because of its narrow definition of giftedness.

These criticisms led to construction of a set of statements about how identified gifted students see themselves and other gifted students as well as the interaction between self and others in regard to thinking skills, problem solving, and logic in school settings.

Method

A total of 150 students in grades 6 to 12, enrolled in a public school for the gifted, were surveyed with the instrument presented in Figure 1 to determine their views concerning working with other students of the same or lesser ability. The survey instrument consisted of 24 items to which students responded on a Likert scale ranging from strongly disagree to strongly agree.

The scale development began with item generation by a group of four psychologists who produced 67 items. The scale was then tried out with 25 gifted students who responded to the items and gave feedback concerning the clarity and relevance of each item. Based on that feedback the four psychologists then agreed on 24 items to constitute the final scale as presented in Figure 1.

Students, at each grade level, at a school for the gifted were then invited to a session, with parent approval, to complete the scale. There were 56 girls and 91 boys distributed across the grade levels as follows: grade 6, 29; grade 7, 18; grade 8, 22; grade 9, 21; grade 10, 24; grade 11, 18; grade 12, 18. Several preliminary analysis showed no consistent sex or grade level differences so the data was pooled for descriptive statistics and factor analysis. Factor analysis with varimax rotation was then done to determine if there were common themes within the item pool.

Results

Item response percentages by agreement level are presented in Figure 2. The factor analysis with varimax rotation yielded three interpretable factors accounting for 14.75, 13.49, and 7.94 percent of the total variance. These factors and items are presented in Figure 3 with tentative factor labels: 1. I am a good thinker; 2. Some kids are not good thinkers; and 3. Impatience with poor thinkers is a problem for me.

Figure 1
Thinking

Name: Date:

Read each statement and then decide whether you strongly agree (SA), agree (A), are undecided (U), disagree (D), or strongly disagree (SD). Circle your choice to the left of each item.

SA A U D SD	1.	I admire people who are very good thinkers.
SA A U D SD	2.	Clear logic is essential in all discussions and debates.
SA A U D SD	3.	People can learn to be better at logic and problem solving.
SA A U D SD	4.	My parents think I am a good thinker.
SA A U D SD	5.	Other kids or adults see me as very good at problem-solving activities.
SA A U D SD	6.	When I work with a group of kids on a task I sometimes find that the group is floundering and I would like to give the solution or answer.
SA A U D SD	7.	I sometimes find that I must force myself to say nothing when I would like to criticize the ideas or logic of some other kids or adults.
SA A U D SD	8.	Good thinking is a rarity among kids and adults.
SA A U D SD	9.	I never show impatience toward other kids or adults who are slow thinkers.
SA A U D SD	10.	There are times in group work when I know the answer but others are still searching for an answer.
SA A U D SD	11.	I feel that some kids and/or adults are poor thinkers.
SA A U D SD	12.	I am often amazed at the faulty thinking or poor logic of some other kids or adults.
SA A U D SD	13.	I sometimes feel that I have to spend a lot of time listening to boring stuff I already know.
SA A U D SD	14.	It is characteristic of highly talented people to see others as slow or faulty thinkers.
SA A U D SD	15.	Some people are good thinkers; others are very poor thinkers.
SA A U D SD	16.	Teachers never show impatience with kids who use poor logic or don't think hard.
SA A U D SD	17.	I sometimes feel disturbed about the poor memory of some kids or adults.
SA A U D SD	18.	Most kids and/or adults really try to think well.
SA A U D SD	19.	I love to work with other kids or adults who are good thinkers.
SA A U D SD	20.	I am a good thinker.
SA A U D SD	21.	Most people use good logic.
SA A U D SD	22.	I sometimes feel impatient about the slow thinking of some others kids or adults.
SA A U D SD	23.	It is a good idea to give gifted and talented kids and/or adults chances to work with others who may be better thinkers.
SA A U D SD	24.	It is easy for gifted and/or talented kids and adults to work with others of low and average ability.

Factor 1 items are a combination of perceptions of self as a good thinker and some perceptions of others as poor thinkers. Factor 2 items more clearly reflect negative perceptions of the thinking skills of other students in all the items. Nearly all Factor 3 items focus on the impatience students or teachers feel or exhibit in relation to less able youth. In general from the factors and item responses reported in Figure 2, there is a rather clear perception among these gifted students that some students are comparatively poor thinkers and that they feel some impatience at times with less able thinkers. They also tend to perceive themselves as good thinkers.

Figure 2
Item Responses

	Percentages				
	SD	D	N	A	SA
1.	2.0	10.7	14.7	47.3	24.7
2.	1.3	8.0	12.7	50.7	26.7
3.	3.3	14.0	21.3	38.0	22.7
4.	2.7	2.7	7.3	42.7	44.0
5.	6.0	19.3	8.7	37.3	28.7
6.	1.3	0.7	10.7	37.3	50.0
7.	2.0	6.7	28.0	39.3	24.0
8.	20.0	33.3	19.3	18.7	8.0
9.	12.7	38.0	21.3	18.0	10.0
10.	2.0	9.3	12.7	40.7	35.3
11.	2.0	7.3	10.0	56.0	24.7
12.	0.7	4.7	19.3	42.7	32.7
13.	2.0	13.3	9.3	42.0	33.3
14.	11.3	24.0	26.7	28.0	9.3
15.	6.0	11.3	21.3	44.0	17.3
17.	6.7	24.7	30.7	30.7	7.3
18.	2.7	16.7	19.3	46.0	15.3
19.	0.7	3.3	16.0	42.0	38.0
20.	0.7	0.7	12.0	48.7	38.0
21.	5.3	19.3	32.0	34.0	9.3
22.	0.7	1.3	14.0	45.3	38.7
23.	4.7	14.0	19.3	52.7	9.3
24.	12.0	34.0	26.7	17.3	9.3

Summary and Conclusions

Leta Hollingworth (1926) alerted us to the possibility that highly able or "gifted" youth may have trouble understanding and accepting the behavior and declarations of less able peers. She referred to the problem as their difficulty in learning to "bear fools gladly." While the language of "bearing fools gladly" reflects harsh and inconsiderate behavior on the part of highly able youth, the problem may indeed reflect a reality comparable to the counterpart intolerance reflected by less able youth in the reference to highly able students as nerds, geeks, or pinheads. From both points of view their behavior reflects a pejorative position and intolerance.

The problem of intellectual intolerance may also be exacerbated by the inclusion movement that strives to place all youth together in mainstream classrooms and thereby heighten the obvious disparity between fast and slow learners who may be at widely differing achievement levels in the curriculum. Second graders reading at the fifth grade level and not yet able to read at all, as well as others who are ready for advanced math lessons while some of their peers can barely add and subtract, would illustrate the extremes of the problem. Teachers would have to be extremely adroit to cater to all these levels of ability and yet make the differences invisible in the eyes of students.

However, there is still little or no research documentation of a problem, especially from the point of view of "gifted" or highly able youth. This project addressed that in a sample of gifted youth in grades 6-12. The purpose of the research was to identify the dimensions of acceptance and negativity that characterized the attitudes of "gifted" youth as they related to or interacted with less able students.

The results suggest that gifted youth do perceive themselves as good thinkers and even superior thinkers in comparison with some other less able students. However, nothing in the results of this study would imply arrogance or intolerance of less able thinkers. The results do suggest that gifted youth experience impatience in their interaction with less able students. In part such impatience could be expected if they know answers and solutions which some other students do not know. Such impatience is sometimes reflected in teachers' behavior when a teacher expresses consternation that a student does not remember something "I just told you!" Similarly when the teacher sees the solution to a problem, it may be difficult to understand why the student does not see it.

Perhaps the essence of the problem resides in the behaviors of intolerance or patience exhibited by the gifted student. I have observed highly gifted students shout out a solution to a problem, exhibit obvious boredom while a mixed ability group struggled with a problem, or even say "how can you be so dumb," but such cases have been comparatively rare.

The best solution to the problem of arrogance and intolerance is probably to

Figure 3
Factor Structure

Factor 1. **14.75 percent of Variance** **I am a good thinker.**

1. When I work with a group of kids on a task I sometimes find that the group is floundering and I would like to give the solution or answer.
2. Clear logic is essential in all discussions and debates.
4. My parents think I am a good thinker.
7. I sometimes find that I must force myself to say nothing when I would like to criticize the ideas or logic of some other kids or adults.
19. I love to work with other kids or adults who are good thinkers.
20. I am a good thinker.
22. I sometimes feel impatient about the slow thinking of some other kids or adults.

Factor 2. **13.49 percent of Variance** **Some kids are not good thinkers.**

3. People can learn to be better at logic and problem solving.
8. Good thinking is a rarity among kids and adults.
11. I feel that some kids and/or adults are poor thinkers.
13. I sometimes feel that I have to spend a lot of time listening to boring stuff I already know.
14. It is characteristic of highly talented people to see others as slow or faulty thinkers.
15. Some people are good thinkers; others are very poor thinkers.
18. Most kids and/or adults really try to think well.
21. Most people use good logic.
23. It is a good idea to give gifted and talented kids and/or adults chances to work with others who may be better thinkers than they are.

Factor 3. **7.94 percent of Variance** **Impatience with poor thinkers is a problem for me.**

9. I never show impatience toward other kids or adults who are slow thinkers.
10. There are times in group work when I know the answer but others are still searching for an answer.
12. I am often amazed at the faulty thinking or poor logic of some other kids or adults.
16. Teachers never show impatience with kids who use poor logic or don't think hard.
24. It is easy for gifted and/or talented kids or adults to work with others of low and average ability.

organize special classes for high ability students in the areas in which their precocity is most pronounced and to organize mixed ability classes in areas of the curriculum in which disparities in achievement levels are not so obvious as in social and vocational-technical studies. Learning to work with peers at all levels of ability is a desirable goal, but it should not be at the expense of less able students who are not fully respected by precocious peers.

References

Hollingworth, L. (1926). *Gifted children.* New York: Macmillan.

Oakes, J. (1985). *Keeping track: how schools structure inequality.* New Haven, CT: Yale University Press.

Parke, B. N. (1989). *Gifted students in regular classrooms.* Boston, Mass.: Allyn & Bacon.

Richert, E. S. (1997). Excellence with equity in identification and programming. In N. Colangelo & G.A. Davis, *Handbook of gifted education* (pp. 75-88). Boston: Allyn & Bacon.

Sapon-Shevin, M. (1994). *Playing favorites: Gifted education and the disruption of community.* Ithaca: State University of New York Press.

A "Rag Quilt": Social Relationships Among Students in a Special High School

Laurence J. Coleman, University of Toledo

Abstract

The experience of being a gifted student at a public residential high school was studied from the student perspective using ethnographic and phenomenological inquiry. The social system that emerged, one that the students judged atypical, is described. Contextual factors are presented in an effort to understand the students' experience.

The life of students in special programs from the perspective of the students has not been a frequent subject of study in the field of gifted and talented child education. Students in programs have been studied, but from the perspective of the researcher, not the child. In general, educational studies looking at the perspectives of the participants in a school community have been growing. Public schools (Chang, 1992; Cusick, 1973; Peshkin, 1978, 1986, 1991), as well as private, independent schools (Cookson & Persell, 1985; Henry, 1993), have been studied. These ethnographic studies reveal a view of schooling that is missing from most accounts because they offer an insider, rather than an outsider, perspective. The participants' views and the school culture are described, not from an expert perspective, but from a living-in-that-world perspective. In the field of gifted education, few ethnographic studies have been published (Kitano, 1985; Story, 1985), although qualitative studies are increasingly appearing (Hébert, 1998a, 1998b; Kitano, 1998a, 1998b, 1998c). This study, like others in the genre, explores meaning from the perspective of the participants. In this particular case, the student experience of living at the school was the centerpiece, and the others in the setting were considered as contextual elements of students' lives. Unlike any other study, this study explores life in a residential, public high school for gifted and talented students.

My purpose is to describe the social system I discovered at a two-year residential public high school. The experience of being there and the resultant social system was reported by students to be different from that found at their local high schools. I came to see the system through their eyes, and it also appeared different to me from what has been generally reported about high schools. Social relationships among the students seemed more open, inclusive, and fluid than those found in other schools (Chang, 1992; Cusick, 1973; Peshkin, 1991). In this article, I describe the social system and end with some observations about what the results mean.

Reprinted from *Gifted Child Quarterly,* Vol. 45, No. 3, Summer 2001, pp. 164-173.

Rationale for the Study: Theoretical and Practical

The study has a theoretical and a practical genesis. It is an extension of my concern about the experience of being gifted in American society. The importance of *setting* had been growing in my mind as a way to understand the development of gifted persons (Coleman, 1995, 1997). I had come to believe that research approaches that focus on the individual out of the context in which giftedness grows, or that look at the person before looking at the setting in which giftedness grows, were conceived in a backward fashion. That is, giftedness emerges in supportive conditions. The most advanced examples of giftedness and talents are connected to such settings. Thus, studying special settings filled with bright, promising children before their talents reach fruition is an uncharted way to learn what gifted persons experience and how they develop. Waiting until later in life to study the individual in isolation from the conditions that nurtured him or her has been a useful strategy for understanding giftedness but one that leaves many questions unanswered (Bloom, 1985; Subotnik & Arnold, 1994).

This study was also conceived as a practical question. Only 12 public residential high school programs for gifted students exist in the United States. What students experience in such settings has not been well documented. The perspective of the students would be useful to developers thinking of beginning such a program, to administrators who run such programs, to parents and children considering applying to such programs, and to those who question the usefulness of such programs.

Methodology, Setting, and Participants

My intention was to learn about the experience of being gifted in a selective residential program over the course of one academic year. The program, hereafter called the Greenhouse Institute (GI; a pseudonym), was a two-year public residential high school designed to serve 300 gifted and talented juniors and seniors in one state. I got access to GI at the invitation of the director. While discussing his probable appointment and our mutual interest in studying the experience of being gifted, we speculated on the possibility of obtaining funds to support a study of the life of GI students. Six months later, the money became available, and I seized the opportunity.

Methodology

My basic research plan was to use ethnographic and phenomenological techniques to learn about the students' experience. I took field notes as a participant observer, conducted interviews, and collected documents. My notebook accompanied me wherever I went for two purposes: to keep a written record of what I

saw and heard and to remind people at all times that I was observing them. I began in the first month making painstakingly detailed entries, including maps, descriptions of the physical environment, and reflections on my observations. The field notes became more focused in successive months as aspects of the students' experience, such as friendship and classroom life, became more figural to me. As a participant observer, I hung out in public spaces where I would meet students, and I went to places where they were known to congregate. By living in the dorm, I interacted with students in private spaces. When activities were spontaneously announced or part of the schedule, I attended. I was invited on walks, participated in birthday parties, ate at the same tables in the cafeteria, participated in role-play games in the dorm rooms, watched videos, shared bathroom facilities, and attended club meetings and Conduct Board meetings. On occasion, I would shadow students, with their permission, through their daily routine. I also attended administrative and staff meetings in which students were not present and student meetings where I was the sole adult. Interviews were either informal conversations, which were later entered into my field notes, or scheduled audio-taped interviews that were later transcribed. I collected three file drawers of documents as they were placed in my mailbox. I have official handbooks and forms, copies of e-mail transmissions addressed to the community, as well as signs, journals, poetry, homework, and so forth.

My enthusiasm for the topic and the excitement of living with the students sustained me as the mountain of data accumulated. For 10 months I lived with the students. In the fall semester, I spent three of every four weeks there, and in the spring, when I conducted in-depth interviews, I spent 10 days out of each month there. The time I spent travelling back and forth from home to the GI was used to listen to tapes, generate provisional themes, and reconsider where to focus my attention. I lived in the male dorm for part of the time and was known as "Larry" or "the guy on the second floor." The study began two days before orientation and continued through the afternoon of graduation. Six notebooks (5"x 8") were filled with 100 days of field notes. One side of facing pages was for description and the opposite side for reflections and maps. These, too, were entered into my computer daily. I taped hour-long interviews with eight students four times and with 13 students one time. My field notes indicated person-specific conversations with 89 students, some multiple times, in various settings around the school, such as the lounge, classrooms, walks, and outside the school on field trips, in a coffee house, and so forth. After four months, a questionnaire was developed for students and another for faculty to corroborate ideas gained from observations and informal conversations. To organize and analyze the field notes and interview data, I used NUD*IST 4, a program for handling non-numerical data (Qualitative Solutions and Research, 1997). As the study matured, I found my attention drawn toward various dimensions of student experience. Given the wealth of data gathered in an ethnographic undertaking, I have chosen to highlight the social system portion of the story in this paper. All

the quotes in the paper are students' words. When names are used, they are fictitious to maintain anonymity. Rarely, I associate incorrect descriptors with a quote for the same purpose.

Setting and Participants

The GI is a two-year public residential high school funded by a state department of education and located on the grounds of a public university. Three hundred is the maximum enrollment. Students are selected on the basis of standardized test scores, four recommendations, and an essay. Many students were identified as gifted and talented in their local schools. The result is an "extremely diverse" group selected from around the state who share an interest in being at the school. The tuition is paid by the state.

The mission of the GI is "to provide a healthy and challenging residential community for eleventh- and twelfth-grade students of high academic ability who are committed to reaching their full potential within a holistic framework" (Greenhouse Institute, 1998, p. 1). At the same time, the GI is to assist "other high schools across the state for quality staff development, distance learning, and support services" (p. 1).

The statement of philosophy in the faculty handbook reads:

> *The curriculum of the GI is designed to provide a balance between the study of required subjects from traditional disciplines and the opportunity for individual exploration and personal enrichment. Throughout the curriculum, the processes of critical thinking, creativity, problem solving, research, and decision making are stressed. . , . Established , . . by the legislature, the GI is . . . devoted to the education of students who demonstrate extraordinary intellectual ability and a commitment to scholarship. The philosophy of the GI originates from the proposition that a society in which justice is a prime concern ordinarily tries to provide educational opportunities appropriate to the expressed ability and potential development of as many sorts of citizens as possible. . . . The GI is dedicated to inspiring and challenging highly gifted young adults to reach their full potential within a framework of the common good. (Greenhouse Institute, 1998, p. 6)*

The program is structured into Academic Life, Residential Life, and Outreach. Each division regards the mission of the school in its own way. Outreach has an important role, primarily off-campus, so students have limited knowledge of it, and it is not part of ordinary conversation around the school.

The students see the GI as a special place. As some say, "like no place else in the world." As teenagers and as adolescents, all are caught in the conflicting demands between developmental and institutional issues. Some handle the GI adroitly; most come to terms with the place and learn all they can; others trudge through it on the verge of being swallowed up by the experience; still others realize that this is not the place for them; and a few crash. The latter two groups

officially leave by "withdrawal."

The basic program is college preparation with rigorous demands determined by each teacher's notion of what is appropriate within the state curricular guidelines. The content is varied, more like a college than a high school. The curriculum is organized into divisions: sciences; mathematics, which includes computers; and humanities. The latter division is the largest and includes history, literature, and foreign languages. Students also attend special courses called colloquia and research. Most classes are on Monday, Wednesday, and Friday, with Tuesday and Thursday reserved for labs in science and foreign languages. In May, a special term is offered with non-standard curricula and opportunity to travel.

Residential life consists loosely of all the time students are not in class. Residence counselors (RCs) supervise dorm life, intramural sports, the wellness program, extracurricular hall-dorm programs, and so forth. Lounges on the ground floor of the adjoining male and female dorms serve as a meeting place for students. Access to mailboxes and sign-in and sign-out take place there. Two or more residence counselors are assigned to each floor of the dorm. The floors of the dorms have different appearances and feeling due to the interaction between each RC and his or her students. A clear difference is evident between the boys' and the girls' side of the dorm in terms of noise (boys are louder), activity level (girls start earlier in morning; boys later into the night), sleeping patterns (girls go to sleep earlier), and conversational topics. Students who are not in class are likely to be in the dorm in their rooms studying, sleeping, or eating. Weekends are a time for "sleeping in, catching up, and hanging out."

Faculty and residential counselors have different roles. Teachers have teaching experience and advanced degrees. Some have taught in the public schools, some in colleges, a few in both. Teachers' average age is early 40s. Residence counselors have experience as counselors and have completed their bachelor's degree. Counselors' average age is mid-20s. Other adult roles are administration, admissions, and career counseling.

Data Analysis

The process of data analysis followed the principles of grounded theory and the constant comparative method (Glazer & Strauss, 1967; Strauss & Corbin, 1990), with insight gained from Peshkin (1986, 1991) and others who have conducted similar kinds of investigations. Permission to conduct the study was granted as the study began. In the next paragraphs, I explain how I modified the method to fit my situation.

As the research study unfolded, I organized my field notes and wrote memos to myself while in the field. Every month during the first semester, I wrote plans for the next month during the week I was away from GI at my university. The ongoing analysis was combined with data collection until I left. I kept files

headed "My Subjectivity" and "Reflections by Date" to record my thinking. I also kept a file on possible themes, and I updated this file each month. Months after leaving the GI, I was preoccupied with the data analysis. While rereading my notes, interviews, and memos, I taught myself how to use NUD'*IST and began to code the data using a preliminary list of categories that were straightforward and that required minimal interpretation. Some beginning categories and their definitions were:

- Kids: students who are my informants;
- Big people: adults at the school;
- Being a researcher: where my being a researcher is evident to others;
- Residential life: anything relevant to residential life;
- Academic life: anything that applies to academic life;
- Parents/family/home: references to families at any time;
- Life in classes: emphasis is on the interactions in the class;
- First impressions: expressions of the impact of arrival, expectations;
- Social relations: events about social system, status, dating;
- Friendships: any mention of friends, "fitting in";
- Schedule: personal schedules of kids; and
- Diversity: ethnic, racial, sexual orientation, gender variations.

Categories were added, collapsed, and synthesized as I coded the data. NUD*IST has a utility that facilitates memo writing by providing for the attaching of memos to specific codes so one can audit the process. Over the summer and early fall, I created three broad themes that integrated the old and newer categories. These were "Structural and Background Issues," such as developmental issues or who owns the kids; "Dialectics," such as power and autonomy or rule keeping/rule breaking; and "Essences," such as the rhythm of the schedule or learning things the system teaches that may not be intended by the GI. When I returned for a member check with the students and adults at GI four months later, my analysis was greeted with acceptance. In one group setting, an adult commented—trying to be honest and apologetic about it, too— that my efforts had only conveyed a very familiar story to someone with years of experience at the GI. In my talks with students, I also got confirmation for my interpretation of their experience. Both reports spurred me forward toward a more fine-grained analysis. The process continued for a year. During that time, besides the practices mentioned, I made other efforts to ensure credibility and trustworthiness of the study, which are reported in the Discussion section of this article.

The Social System in General

My intention was to learn about the experience of being a student in a residential educational setting. In the course of living at GI, I heard conversations

and references by students that compared their local high school to the residential school. As I probed those comments more deeply, I became more aware of the relationships among the students and the social system at the special school. This realization became the topic of convergence for this paper.

Social system is my term to represent the interrelationships among the students. Students would more likely use the term friends. However, that latter term is loaded with surplus meaning for everyone and did not fit what I observed and what they experienced. In this paper, I describe the student-to-student relationships, sidestepping the adult-young person relationships until another paper. To capture many of the elements of the school, I quote a student, a female senior, who suggested this simile during a group interview among peers who approved her description. The title of the paper is the student's metaphor:

> *The GI is like a quilt [general, warm laughter]. It's, like, okay, my mom makes rag quilts, and my grandma does, too. All the pieces of material come from things that she had around the house, like old dresses, bedspreads, sheets, or curtains. . . . That's what I thought GI was like because we all come from very different places, and maybe we're all a little odd. You wouldn't think that if you threw us all together we'd fit together, but, like, I think that we do. And this place is really neat! Like when we're all together, I know that I am nothing like any of these kids in this room, except that somebody somewhere thought that I was gifted and they thought that I should come here. That's neat that we were all thrown together. And now we all get to explore and see what kinds of different groups and friends and ideas we can have when we meet. You know?*

GI students are "thrown together," and a social system emerges that students identify as being different from their home schools. Obviously, the program shapes the social system. GI values learning and diversity and recognizes the commitment students make to live there. In response to observations and questions about the meaning of status, being cool, popularity, diversity, racism, and friendship, I learned of a social system that differs from the typical high school. Some characteristics are similar to a local high school, and in some ways the characteristics are different. Was I seeing a social system that reflected many of the values that we claim to honor in our pluralistic, democratic society?

What Does Emerge?

On the surface, GI appears to be a typical urban high school. Students of different hues, in varying styles of dress, carrying book bags, walk to class. Conversations can be heard about the previous night (How late were you up?); about schoolwork (Could you believe those problems he gave us?); about food (I couldn't eat that lunch."). In the classrooms, familiar scenes of one teacher and groups of students sitting at desks are visible. Some students slouch, some are taking notes, a few pass notes, and several look like they are half-asleep. In the lounges, I see students in pairs or larger groups talking, joking, reading,

studying, wrestling, making plans for later. In the dining hall, most students eat quickly and leave; few linger to talk, except at dinner. What is happening here? What does this mean to them?

Beneath the obvious, glimpses of the social system were apparent, but the atypicality was less evident. A network of relationships among students emerged that was neither fixed nor hierarchical. Groups were loosely formed with boundaries that were permeable. Indicators of status, coolness, and popularity were minor issues of concern to students. Differentness or being different was recognized, acknowledged, and accepted. Students moved comfortably from group to group. Isolates were present, yet the circumstance was their choice. Being different in this way was accepted, too. Recognizing that these descriptors were in marked contrast to most high schools, I asked, "Is what I am seeing really happening and how does this system get created?" In the next pages, I will try to answer those questions.

How Does This System Get Created ?

The "rag quilt" quote, cited earlier, presented the student perspective of being "thrown together." That is not the administrative perspective, nor would their parents accept that possibility. The network of relationships occurred in an organization with a mission and a structure intended to carry out that mission. The students and their parents accepted GI's mission in order to gain entrance.

Essentially, GI was visualized from the student perspective, not the official perspective, as overlapping circles resting on a central point. The students are in the middle, and coursework (Academic Life) and dorm living (Residential Life) overlap, pressing on students. All these circles rest on a small administrative fulcrum. The school has a set of policies and rules governing the students' lives. Students regarded the rules as creating restrictions on the freedom to which they were entitled. "Prison" or similar words denoting control were metaphors used by many students to answer the question, "What is the GI like?" The place is more like "a highly restricted college." (My favorite metaphor was "a dysfunctional family on speed.") Students recognized the need for rules because of their age and because of parental insistence; yet, at the same time, they resisted them. One student, a junior male, echoed a common sentiment in saying, "Like, my ideal environment is that everybody here should be capable of dealing with a dorm and handling their academic life and everything, and they shouldn't need someone to enforce the rules." Students would prefer a system in which they had "complete freedom, where we are responsible for ourselves" and if "you mess up, you leave" (multiple students). The protective tendency of GI, fueled by state politics and parental worry, engenders the rules and policies that constrain student behavior.

When juniors arrived for orientation, social relationships began due to proximity, and friendships started to grow. The newness was unsettling. According to

one junior female,

> *I don't know how anybody who hasn't gone through it can understand it. In a half semester, I have gone through more stuff than I went through all last year. Just people, things happening, You are exposed do so much, so many new things all at once. It kind of blew my senses.*

The seniors and adults treated them in a way that shaped their evolving friendship-relationship system. The values students brought and the values of the school collided. Basically, the values were similar, at least in official terms, because students were voluntarily in this particular setting. The students accepted the restraints and welcomed the apparent freedoms initially. In actuality, there was considerable variation among students. Juniors learned quickly that they were neither in their home nor in the local school. They welcomed the change while being stunned by it. Diversity, official rules, and rigorous academic demands became clearer. As juniors became seniors, their sense of the social relationships remained consistent. The prospect of college entrance became dominant in seniors' thoughts, and the end brought feelings of estrangement, loss, and wistfulness. Visiting alumni told residents that the GI is "more demanding, harder" than the select colleges many of them would attend.

Central to understanding the social system is comprehending the importance of friendships. The development of friendship followed a familiar pattern. Students arrived excited and found it difficult to sleep. Placed in orientation activities run by Residence Counselors and Resident Assistants (RAs) after an official welcome, the students began to interact. Most knew no one. A few already knew one another from summer camps, hometown, or preview visits. Roommates generally were new to each other. People gravitated toward those who resembled them in appearance and demeanor. Initial feelings associated with anxiety among a diverse group of strangers gave way to a sense of "openness" and freedom. At this stage, relatively few groups formed that were reminiscent of the home school. Within a few weeks, students noticed that boundaries had not hardened, cliques had not evolved. Movement in and out of groups was easy. Friends extended in all directions. A junior male said, "What's neat is that you meet strangers and they know what you are talking about [referring to home school] without having to explain it." Roommates were friendly, but they did not necessarily become fast friends. As one junior female put it, "Here you are never far from a friend." Friendships helped students deal with the times when classwork and homework was not going on. "You go through such crazy things here; but, since you're with people who want to learn also, it makes a difference" (junior female). The importance of friendships for juniors and seniors was evident in this provocative metaphor about life at the GI:

> *I think friendship's very important here because it's just so hard to get through a week. Because a week is just so sectioned off [by being busy doing the aca-*

demic work) that you're like, okay, next one, next one. It's just like you're standing in the ocean and you're waiting for the next wave to hit and, on the weekend, you crawl back up to the beach, and you rest, and Monday you go out there and stand again. Friends help you keep going and live with it (junior female).

Friendship also caused stress. Friendships formed quickly. "You form them so fast and they're so strong; and then they can get broken really fast and just go away" (senior female). Friendships were intense because students lived with and saw each other all the time. One student was having a disagreement with another, "And everywhere I go, he's there in the dining hall, in class, in the lounge, in the computer lab. There is no time like I can get away from it and think about it" (junior female). A student presented an intriguing notion of the situation:

I would say that, if there's ever a person you don't, you know, particularly like . . . it's going to be like really bad. Because you are going to see them a lot of the time. And you have to be able to have this self-control to not act on this dislike. Because, you know, when you're living in such a close environment, the relationships are going to be strained. They're either going to, like, go through and be like coal turning into a diamond and being hard core; or else it's going to be crumbled to the dust and you're going to hate them (male junior).

In his view, students made choices to make their residential world livable. An aspect of physical closeness, privacy, was mentioned by girls as a factor that heightened friendship pressure. "Everyone knows what you are doing. It gets around" (junior female). Among boys, friendship stress seemed related to being attracted to activities away from studying, and toward computer and role-playing games.

Friendships with persons who were different from oneself were more likely at GI than at the home school. Some children noted the heterogeneity of their own friendships. Every student I asked reported being friendly with someone with whom they would not likely be friendly at the home school. "Like, I have some friends that are really different and nothing like anybody I ever hung out with before" (male senior). These statements refer to persons who are "not straight [gay]," as well as persons of a different race.

Encapsulating the Social System

The system of relationships among the students with all its complexity can be characterized by six terms: openness, fluidity, acceptance, busy, pressure, and shock and amazement. Some of these terms are direct expressions of the students (openness, pressure, shock and amazement); the remaining three terms (fluidity, busy, and acceptance) were similar to the words students used and are intended to capture what they experience. Each term is described below.

1. Openness means that all kinds of ideas are floating around in conversations and classes.
2. Fluidity means that relationships, as well as group membership, change, with the boundaries between groups being permeable.
3. Acceptance means that it is okay for someone to express various sorts of behaviors, ranging from conforming to idiosyncratic.
4. Busy means that scheduled events or activities and deadlines are ever present. Students are usually on the verge of moving on to another activity or class.
5. Pressure means that the pace of life is amplified by notions of self and academic requirements. All students feel the pressure, but the intensity of that feeling depends on many factors, such as personality, schedule, luck, previous schooling, and so forth.
6. Shock and amazement means the reaction students have when they encounter diversity, official rules, rigorous academic demands, and the limits of residential life. They learn they are in a place that is not the family home, but is their home.

Eventually, the bewilderment gave way to an allegiance to the ways of the place. Much like people who have survived adversity, the students changed into GIs and swapped stories when they returned as alumni. The four student speakers at commencement voiced these six themes.

Incongruities of the Social System

In the network of relationships, some elements seem incongruent to my description up to this point and are indicative of the complexity of the social system. The school's enrollment was small, less than 300 students, yet not everyone was sure who everyone else was by name. Seniors and juniors were aware that they did not know each other by name. Three factors figured into this situation. First, the dorm arrangement was a powerful force. The genders were separated into different buildings, and while choice of roommates and residence counselor was possible for seniors, juniors had few choices. Students tended to know people on their residence floor, especially in their RC group. The schedule was the second variable. Schedules were crammed, and time was at a premium. Students tended to know people who were in their classes. The third factor was the weekend departure of one-third or more of the students. Those who lived within two hours of the school or had families with the time and money periodically went home for the weekend.

Conflict among people is inevitable in social groups. At GI, people did get annoyed, "on edge," and "pissed off" at each other. Misinterpretations of other's behaviors and words happened. The lack of privacy in a residential school was a constant fact of life. I cannot estimate the actual amount of interpersonal conflict. Rarely did it happen aloud in public places. When it occurred, it happened verbally, mostly in the dorm where the RC and RA helped smooth any inci-

dents. My field notes contain no instances of obvious conflict. Although there was friction, there was no physical violence. GI students reported no stories of fights. Students used words that suggested that it could happen, but it never did during the year I was there. Adults told me fights had never happened in the history of the program.

Some groups of students were identifiable as groups. Two groups were obvious to everyone. The first group was identified by their commonality: They were couples who dated for more than a month. This was a small group at GI, so they were noticeable. Members of some ethnic or racial group formed the second group.

Outsiders might identify these groups as cliques, but very few students did; that would be an incorrect designation in this system. Whenever I heard the term clique, I followed up with that student at some later time and tried to find out who constituted the clique. My observations and questions, direct and indirect, yielded similar responses. Students hedged their descriptions, unable to supply a picture that would fit the idea of rigid boundaries implied in the term clique. In fact, my informants moved away from the idea. Students noted two groups, the most obvious being Asian Indian males and African American females, whom I had noticed during meals early on in my stay. Students did point out these groupings, yet did not interpret them as cliques. Interestingly, not all Indian males nor all Black females belonged to those groups. In the dining hall or in the lounges, mixed groups were the standard. The boundaries were open. Explanations for this behavior by outsiders who were of the same or different ethnicity had to do with accepting the others' need to be "exclusive" at this time and a chuckle that any group would think themselves to be special. Probing in various ways over the months did not produce statements about clique-like grouping having to do with racism. The students felt that the members of those groups had a need that was viewed as mildly different from other GI students.

American history consists of many stories of racism. In GI, racism exists, too, but apparently not in the usual way. In fact, many students would say it is not present; others would say it is. Diversity stands out as a foundational notion of the school. Students were amazed by the scope of it in their lives. The pervasive presence of diversity required that they make sense of it. For most, it was "not like anything" they had experienced. Most reported that their home school was monocultural. Whites go to school with Whites, Blacks with Blacks. The other ethnic groups were too small in the state to be used in a characterization of the home school. The students found the diversity attractive and bewildering. The variety of ethnic and religious differences was startling, even for members of the same general ethnic group. I recall a meeting of a club at which the members who acted like they shared a subcontinental culture (India) were not able to understand the foods each described.

The meaning of diversity at GI was complex. The term applies to many

kinds of variations. Not only were racial, ethnic, and religious differences included, but also urban-rural differences, gender differences, and sexual orientation differences. The first and most common meaning was racial difference, and that means Black-White differences. The other races were recognized, but were seen as tangential to the dialogue when diversity and racism were mentioned. (Of course, members of the group recognize each other.) Members of non-Black racial groups said racism was present. All students downplayed it as an active force in the life of the place. For students, the second and most disturbing notion of diversity was sexual orientation. The presence of gay, lesbian, or bisexual classmates forced students to make sense of the disconnection between personal liking for someone and religious training about those others (homosexuals). I used the word force because students lived 24 hours a day for 10 months with each other. For example, statements like "I am a Christian, and it is against my religion" were coupled with "Frank is a great person. I like him. He is like me."

Typically, diversity was talked about very positively and was taken for granted. Many stated diversity was the dominant characteristic of the school for them. If there were strong inclinations to be negative about it, I did not hear them voiced. Notwithstanding, conversations about racism were experienced as discomforting. Blacks and Whites saw the situation differently. Both parties acknowledged off-hand comments that hint of racism. "Attempt at humor" was the students' universal descriptor when racist comments appeared. Both parties were hesitant to say that racism was actively present. All were aware that diversity is valued at GI and the environment would not support racist comments. "Every once in a while, there's some people who [make comments] and everybody's like, shut up now, we don't want to hear it, you shouldn't say that" (female junior). Another student noted, "It would not be smart" (male junior), meaning racist comments did not fit in a diverse environment like GI.

How Whites and Blacks reported the frequency of conversations about diversity presents a meaningful dichotomy. Whites stated that diversity was a familiar conversational topic. Blacks said it was not discussed. The split in viewpoints was because the Black students were speaking of racism; Whites were not. The lack of conversation about racism disturbed Black students. A student said it for his peers:

> *The GI is such an open environment that everything gets talked about, I mean sex, drugs, everything gets talked about except race. Except race. And the thing about it, okay, if we can talk about all those things, why can't we talk about race? Is something so bad? So scary that we can't get people's opinion about the subject? (male senior)*

The extent to which students from other racial groups thought about racism was never clear to me. I am certain that they recognized their differences from others in general, as well as their differences from specific other groups such as

Koreans or Iranians, yet those groups have mixed memberships. The formation of clubs linked to ethnic groups suggests such an identification. Some of that awareness may have been heightened by being the children of immigrants with traditional culturally relevant values more than by being members of the racial group.

Dating occurs, but it was not a big part of life at GI. A small group of students were referred to as couples. Stickies was one term used to denote couples who were physically close to each other, and sex was an ever-present topic of jokes. Friendship was more important than dating. Friendships between the genders could be seen in study sessions in the lounges and in pairs or in groups of threesomes or more leaving the dorm in the evening, in the dining hall, and in the halls of the school. Sometimes a long-term friendship would turn into romance and a couple would develop. According to the students, these seem to be the ones that lasted. My sense is that there was less sexual activity at the school than in most high schools. A questionnaire answered by half the students, comprising a relatively even proportion of males and females, indicated that dating did not occupy a lot of time. There was some intense activity by a few. Stories of sexual activity were available for listeners. My hunch, after four months, was that those stories were largely exaggerations or fabrications that were indicators of wishful interest, rather than real activity. Two students confirmed this on my last day in the field when I asked them point blank to give me percentages and numbers. During a member-checking visit four months later, I shared with seniors my finding and asked for feedback. What I received were explanations that were familiar from my field notes, including "We know each other so well it is like dating your sibling"; "We see so much of each other that relationships arise and end rapidly"; "We have other priorities at this time" or "This is a transition time in our lives with nothing permanent"; and "Many of us have relationships with friends outside the school."

Indicators of status were present in the school, although they did not seem to exert much pressure on the social relationships. I suspect that some students were concerned about their place in the school. A few adults expressed concerns about this point, but rarely did students express any to me. I was never able to determine anything resembling a consensus about what made someone cool or popular or attractive. Some points that may relate to thoughts of status included taking hard courses, the college a student got into, science over humanities, and clothing. How such thoughts affected social interaction was unclear. I have little evidence on the subtleties of this point, and I believe that this is one of the weakest areas of my analysis. For seniors, the college to which they are admitted was a concern. At the same time, it was also an unpredictable process. Students acknowledged by others as bright did not always get into the prestigious schools, and size of scholarships could influence the final choice. Of course, college admission becomes public in the last semester of the senior year, rather late in the life of the students at GI and in the formation of the social system. Because I spread my attention between juniors and seniors, I may have

missed some changes in the system.

Discussion and Implications

The person doing the study is the prime research instrument in interpretive scholarship. All data are comprehended through the researcher's mind as he or she constructs the meaning of the participants from the data. Understanding who has conducted the research becomes important in order to determine the trustworthiness of the findings (Denzin & Lincoln, 1994). Throughout this paper, I have provided theoretical and methodological information relevant to the issues of trustworthiness and credibility, such as evidence of prolonged engagement, thick description, and member checking. In this last section of the paper, I add a description of my background to help readers make sense of the findings and the inferences in the discussion.

I am an advocate for programs for the gifted. My experience in such programs includes direct teaching, organizing, administering, and evaluating day and residential programs. These skills and knowledge have resulted in a written record of my experiences. Cognizant of my established views and wary of their potential influence, before I began I wrote a statement clarifying what I expected to see at GI and a statement detailing the limits of my role to the director of the institute who is a colleague and a friend. Also, I reported only themes that were supported by multiple sources (students, documents, and adults) and multiple methods (participant observation, documents, and interviews) that have been shared with the participants in person or by e-mail and that have been presented for critique to colleagues in the field and in a research group.

Students at GI constructed a social system that they identified as different from their home high schools and different from the literature on high schools (Chang, 1992; Cusick, 1973). A group of diverse students from the same state who share a serious interest in learning enter a selective program designed to promote academic excellence. A social system emerges in that high school that values diversity and advanced learning. In this system, differences of many kinds are accepted and appreciated, cliques do not form, boundaries among groups are permeable, movement is fluid, and academic accomplishment is valued. In my field notes, the frequent variance of who was with whom at different times and places emphasizes these facts.

The picture of the social system seems almost idyllic. How can the divisions within society not be manifested here? Differences based on gender, socioeconomic status, sexual orientation, race, and ethnicity exist at GI. Recognition of difference is evident, yet conflict based on them is almost invisible. The historical divisions based on those differences in our larger society exert insufficient strength to reproduce the typical high school society as produced and experienced by these students in their reports of home schools. Instead, the students see the differences among themselves; students belong to multiple, loosely formed groups; they like the diversity, as well as recognize some groups remi-

niscent of the larger societal divisions; they interpret the presence of such groups as inappropriate at the GI, yet understandable; and students create a fictitious group of insiders—the GIs—representing the whole.

The social system is no accident. The participants (students, faculty, staff, and administrators) make it happen. In this paper, I have concentrated on how the students reported their experience, and I downplayed the adults in the story. I wanted to bring to the surface the students' lives. Actually, the students, their families, and the program influence the creation of a social system. GI, circumscribed by its mission, its academic life, its residential life, and its administration, clearly contributes to the development of the social system by constraining what happens there. GI is almost a total institution, a term coined by Goffman (1961) to describe places where all the elements of life are controlled or influenced. Unlike a total institution, GI students can decide to leave. Student choices are within a limited range, set by the adults. Students participate in discussion of policy and of the enforcement of rules in some cases, but the power rests with the adults. Students do circumnavigate obstacles and negotiate rules with adults to get their needs met.

The institution is not trying to create the precise social system that emerges, although many of GI's values are consonant with it. I believe GI unwittingly creates a climate of pressure and pace that pushes the students toward the creation of the social system that emerges in order for the students to sustain themselves at the school. In this way, the situation reminds me of Sherif's (1966) notion of a superordinate goal that diverse groups need to bridge racial and ethnic differences. I doubt that GI could prevent the emergence of a more typical social system unless the students were willing to exchange their experience in the home school for that of GI (Cusick, 1973). I see the students tacitly agreeing to ignore the forces that could divide their social relationships and to buy into the culture of the school. This picture has some elements similar to Peshkin's (1991) description of how high school students at a multiethnic community school dealt with difference.

Two additional stories need to be told from my data about the student experience in reference to the social system. The first has to do with the students, and the second with the research process. As one student informant told me when I asked for advice on writing about his and others' experiences one week before graduation, "Do not forget we are adolescents, teenagers, okay?" (male junior). The point is so obvious, readers may have missed it. GI students must grapple with issues of identity, now and in the future, as well as thoughts about sexuality, drugs, career, and so forth, as all adolescents do (Chang, 1992). Those issues are evident in the conversations among students and adults.

The second story that should be mentioned is the way I conducted the investigation. I might have focused on instances of friction among students and spent more time than I did investigating what they mean. My decision to not explore those frictions was because participant observation showed that the few instances I encountered were inconsequential to the bigger story of the adapta-

tion to the program and the emergence of the social system. I simply neither witnessed nor heard much about friction among students. What I did hear had little heat. The students' conversations were mostly about coming to terms with the rigorous academic and residential demands of GI.

The story I have chosen to tell in this paper was not obvious to me for a year after leaving the field. My field notes and my reflections during that period reveal multiple entries on students adapting to the constraints of the institute. I wanted to understand social relationships, but my choice to concentrate on the social system occurred after I recognized that my spontaneous reaction to questions like "So, what have you learned?" was about the social system. I interpret my slow realization as an indication of my effort to not see what was there because I feared my values might be pushing me in that direction.

My findings are about the student experience in one residential high school during one year. To a lesser extent, my findings may transfer to what might happen in subsequent years at GI. The findings suggest that it is possible to have a social system that differs from that found in most high schools. Whether the system I have described is feasible or desirable in another program is something to ponder. Those who have designs on starting such a school or those who are considering participating as a student, parent, teacher, or counselor should recognize that GI is an exciting and demanding place. Not everyone would want to stay in that environment, and who fits in that environment depends on many factors that are beyond the scope of this paper. Finally, for those who want to understand more about the experience of being gifted in any setting, I recommend listening to the students because they have much to share with us about their own development and we have much to learn.

References

Bloom, B. S. (1985). *Developing talent in young people.* New York: Ballantine.

Chang, H. (1992). *Adolescent life and ethos: An ethnography of a U.S. high school.* London: Palmer.

Coleman, L. J. (1995). The power of specialized environments in the development of giftedness: The need for research on social context. *Gifted Child Quarterly*, 39, 171-176.

Coleman, L. J. (1997). Studying ordinary events in a field devoted to the extraordinary. *Peabody Journal of Education*, 72,117-132.

Cookson, P., & Persell, C. (1985). *Preparing for power: America's elite boarding schools.* New York: Basic Books.

Cusick, P. A. (1973). *Inside high school: The student's world.* New York: Holt, Rhinehardt, & Winston.

Denzin, N., & Lincoln, Y. (Eds.). (1994). *Handbook of qualitative research.* Thousand Oaks, CA: Sage.

Glazer, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New York: Aldine de Gruyter.

Goffman, E. (1961). *Asylums: Essays on the social situation of mental patients and other inmates.* Garden City, NY: Anchor.

Hébert, T. (1998a). Gifted Black males in an urban high school: Factors that influence achievement and under-

achievement. *Journal for the Education of the Gifted*, 21, 385-414.
Hébert, T. (1998b). DeShea's dream deferred: A case study of a talented urban artist. *Journal for the Education of the Gifted*, 22, 56-79.
Henry, M. (1993). *School cultures: Universes of meaning in private schools.* Norwood, NJ: Ablcx.
Kitano, M. (1985). Ethnography of a preschool for the gifted: What gifted young children actually do. *Gifted Child Quarterly*, 29, 67-71.
Kitano, M. C1998a). Gifted Asian American women. *Journal for the Education of the Gifted*, 27, 3-37.
Kitano, M. (1998b). Gifted Latin women. *Journal for the Education of the Gifted*, 21, 131-159.
Kitano, M. (l998c). Gifted African American women. *Journal for the Education of the Gifted*, 21, 254-287.
Peshkin, A. (1978). *Growing up American: Schooling and the survival of community.* Chicago: University of Chicago Press.
Peshkin, A. (1986). *God's choice: The total world of a fundamentalist Christian school.* Chicago: University of Chicago Press.
Peshkin, A. (1991). *The color of strangers, the color of friends: The play of ethnicity in school and community.* Chicago: University of Chicago Press.
Qualitative Solutions and Research. (1997). QSRNUD*IST4 user guide. Thousand Oaks, CA: Sage.
Sherif, M. (1966). *In common predicament: Social psychology of intergroup conflict and cooperation.* Boston: Houghton-Mifflin.
Story, C. (1985). Facilitator of learning: A microethnographic study of the teacher of the gifted. *Gifted Child Quarterly*, 29, 155-59.
Strauss, A., & Corbin. J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage.
Subotnik, R., & Arnold. K. (Eds.). (1994). *Beyond Terman: Contemporary longitudinal studies of giftedness and talent.* Norwood, NJ: Ablex.

Author Note

My gratitude to the persons at the Greenhouse Institute who were willing to share their lives with me. I learned more than I will ever be able to tell about myself and their lives.

Dimensions of Competitive and Cooperative Learning Among Gifted Learners

John F. Feldhusen, Purdue University; David Yun Dai, Central Missouri State University; and Pamela R. Clinkenbeard, University of Wisconsin-Whitewater

Abstract

This study explored the dimensionality of preferences for competitive and cooperative learning. A researcher-designed Cooperation/Competition Scale was administered to a sample of 176 gifted students who attended a summer program for gifted children. A factor analysis partitioned competition items into two components: (a) a desire to win or outperform others and (b) a preference for competition as an energizing factor for learning. Different motivational correlates of cooperative and competitive factors also suggest the validity of a differentiated conception of competitiveness. A cluster analysis identified five relatively homogeneous groups in terms of preferences for cooperative and competitive learning. The results are discussed in the context of recent debates on the desirability of cooperative, competitive, and individualistic learning conditions for gifted students.

Introduction

Competition and cooperation have long been a central concern of researchers who focus on the impact of social dynamics in motivation and learning (Johnson & Johnson, 1989). Cooperative learning is now firmly established as a teaching methodology in American schools (Johnson & Johnson, 1989; Slavin, 1990), but strong questions about its use with gifted students in heterogeneously grouped classrooms have been raised by Robinson (1990). The benefits and problems of cooperative learning for gifted students have been debated on practical, as well as ideological, grounds (Johnson & Johnson, 1993; Matthews, 1992; Sapon-Shevin & Schniedewind, 1993). The cooperative-learning movement has often denounced competitive teaching methods as destructive of intrinsic motivation and socially unfair or undesirable. However, relatively little research has been done to clarify the effects of cooperation and competition for gifted students.

Of the limited research, Clinkenbeard (1989) found that gifted students felt greater continuing motivation, stronger effort attributions, and better learning in an individualistic condition rather than in a competitive condition. Subotnik, Kassan, Summers, and Wasser (1993) conducted a retrospective study of high-IQ students and found diverse and sometimes contrasting responses to the effects of competition. Li and Adamson (1992) studied gifted secondary stu-

Reprinted from the *Journal for the Education of the Gifted*, Vol. 23, No. 3, 2000, pp. 328-342.

dents' preferences for cooperative, competitive, and individualistic learning conditions and found that gifted boys preferred individual and competitive styles to the cooperative style while gifted girls preferred the individualistic style to competitive and cooperative styles in mathematics. The mean differences for the measures of the three styles or preferences, however, were relatively small; and there seemed to be significant individual differences in learning styles among these gifted students.

Using goal orientations as a theoretical framework, Thorkildsen (1988) examined a competitive goal (ego) orientation — defined as a desire to outperform others and demonstrate superior ability — and its correlates. She found that ego orientation was associated with a tendency to minimize effort in learning (i.e., work avoidance). Based on the goal-orientation research, Thorkildsen (1994) concluded that cooperative learning and communal approaches to gifted education promoted fairness in school and fostered a learning or task orientation, whereas competition made learning a means to an end and undermined students' commitment to learning. Similarly, Dweck (2001) argued that a competitive orientation made it more likely that gifted students would avoid challenges that they feared would reveal their inadequacy. Dweck (1986) suggested that a desire to win favorable judgments about one's ability partly derived from the belief that intelligence or basic ability is a fixed entity. Nicholls (1989) also postulated that competition increased social-evaluative pressure (from peers or teachers) and made students more concerned about their public self-image than about learning. Dai and Feldhusen (1998) found that gifted students who had an ego orientation also tended to perceive peers and teachers as always having high expectations for their performance.

There seems to be a strong sense among educational researchers that competition, either as implemented in educational practices or as a personal desire to compete with others, is detrimental to motivation and learning. There is, however, a possibility that individuals may perceive and interpret competitive situations differently. Some students may perceive competition as energizing and motivating for learning. For them, competition may mean challenges; and challenges, coupled with adequate learning skills and self-efficacy, raise motivational levels (Csikszentmihalyi, 1990; see also Dai, Moon, & Feldhusen, 1998). Others may perceive competition as an opportunity to show off or outperform others. Still others may perceive it as intellectually threatening. Thus, a more differentiated conception of competition is in order.

Educational researchers also tend to think of competition and cooperation as two mutually exclusive conditions. However, as individual preferences or styles, they are not necessarily so. Kline (1995), for example, found that competition and cooperation are not two ends of a single dimension but two separate and distinct psychological dimensions. Both may be adaptive and the result of adaptation to environmental demands, such as meritocratic reality and concern for social cohesion and harmony.

The purpose of this study was to explore the dimensionality of preferences for competition and cooperation among gifted students. It probed the uni- or multidimensionality of the two constructs and asked whether preferences for competition or cooperation constitute two ultimate, unitary constructs. In addition, to place these dimensions in a nomological network of related motivational constructs, we explored associations between preferences for competition or cooperation and other motivation-related perceptions, beliefs, and orientations. Specifically, we asked whether preferences for cooperation or competition are related to gifted students' self-confidence, views of intelligence, perceptions of peer and teacher expectations, and challenge avoidance.

Method

Participants

One hundred seventy-six students, aged 9-17, attending a summer residential program for the gifted participated in the study. There were 66 boys and 69 girls. Forty-one students did not provide information about their sex. Forty-five students did not provide age information. Fourteen students were 9-11 years of age, 80 were 12-14, and 37 were 15-17. The selection criteria specified that a child have a GPA of A-/B+ or higher. In addition, he or she should have a score at or above the 95th percentile on a standardized achievement test, or 120 or higher on an intelligence test. Participants, in general, were academically motivated because they opted to spend some of their summer vacation time in an intensive academic program.

Instrumentation

A researcher-designed Cooperation/Competition Scale was developed to assess student preferences for cooperative and competitive learning environments. Items were generated by the authors by examining many articles and texts on cooperation and competition in learning and searching for salient behavioral and cognitive indicators of the constructs. The final scale consisted of 28 statements (see Table 1).

A Goal Orientation Questionnaire, separately developed by the researchers, was used to provide motivational correlates of cooperative and competitive learning-style preferences (Dai & Feldhusen, 1996). This questionnaire measured the following four constructs:

1. Self-Confidence in intellectual ability was measured by a three-item instrument developed by Dweck and Henderson (1988). A sample item reads, "I feel pretty confident about how intelligent I am." The alpha reliability coefficient on this scale for this sample was .61.

2. Views of Intelligence included four items (Dweck & Henderson, 1988)

assessing whether students believe that intelligence can be changed with effort or that it is a fixed entity. A sample item reads, "You have a certain amount of intelligence and you really can't do much to change it." Alpha reliability was .74.

3. Perceived Expectations From Peers and Teachers (Others' Expectations) was measured by a three-item instrument. It was used as an indicator of perceived social-evaluative pressure. One item reads, "Other students always expect me to know the answers." The alpha reliability was .68.

4. Challenge Avoidance refers to a tendency to choose tasks that have no risk of failure and avoid tasks that might expose personal inadequacy. Four items were used for this study. A sample item reads, "I dislike problem-solving activities in which I can't find solutions quickly." The alpha reliability was .60.

Readers are referred to Dai and Feldhusen (1996) for more descriptive and technical details about the Goal Orientation Questionnaire. Both the Competition/Cooperation Scale and the Goal Orientation Questionnaire used a five-point Likert scale, eliciting responses from Strongly agree to Strongly disagree.

Results

A preliminary factor analysis of the Competition/Cooperation Scale with the total sample (N= 176) yielded seven factors with eigenvalues exceeding one. For the sake of parsimony, a four-factor solution, with eigenvalues exceeding 1.5, was used in all subsequent factor analysis (see Table 1).

The four-factor solution accounted for 52.5 percent of the total variance. Varimax rotation converged in six iterations. Factor loadings ranged from .85 to .44, with a mean of .65. To test the stability of this factor structure, two random samples, approximately 50 percent of the total sample each, were subjected to the same statistical procedure. The four-factor solution accounted for 55.3 percent and 55.8 percent of the variance, respectively. For the first random sample, Item 23 crossloaded on Factors 2 and 3. For the second random sample, Items 15 and 19 cross-loaded on Factors 2 and 3. No items shifted their initial factor membership. These results suggest that, although Factors 2 and 3 may be correlated, the overall factor structure is stable.

The resultant four factors are conceptually interpretable. The first factor assesses general attitude toward cooperation in learning settings; we named this factor Cooperation. It is worth noting that the item "I learn best when I work alone," indicative of an individualistic learning preference, loaded negatively on this factor (loading a -.67). The second factor is a liking for winning or the affective valence for winning; we named this factor Competition-Outcome. This factor is conceptually closest to the construct ego orientation in the framework of goal-orientation theories (Nicholls, 1989). The third factor distinguishes itself from the second one in that it emphasizes not the outcomes but the enjoyment of, and preference for, competition as a mode of learning (e.g., "I like to com-

pete in learning situations"); we named this factor Competition-Process. The fourth factor was unexpected since these items were predicted to load either on competition or cooperation factors. What these items have in common is a negative connotation across cooperative and competitive learning situations (e.g., "When I lose, I give up" or "When I work on group projects, I let others do most of the work"). This factor can be interpreted as a tendency to disengage oneself from either competitive or cooperative learning environments and a general negative attitude toward demanding learning environments; we named this factor Disengagement.

The alpha reliability coefficients were .91 for Cooperation, .83 for Competition-Outcome, .73 for Competition-Process, and .53 for Disengagement. Four factor scores of the Competition/Cooperation Scale and the four measures of the Goal Orientation Questionnaire were generated by computing average scores for each factor, with a possible range of one to five. High scores indicate the presence, strength, or both of the construct in question.

Of the four measures of the Competition/Cooperation Scale, only Disengagement was positively skewed (M = 2.02; skewness = 2.7), indicating that the majority of the respondents did not endorse items included in this factor. Because this factor was an unexpected residue of the cooperation and competition factors and also because it had low reliability, in the following analysis, the focus is on the other three measures that are of primary interest to this study.

Since participants were in diverse age groups, a multivariate analysis of variance (MANOVA) was conducted, using gender and age groups as independent variables and the three cooperation and competition measures as dependent variables. Participants were grouped into three age groups: 9-11, 12-14, and 15-17 years of age. Because of missing data, 131 cases were included. No main effect of age was found (Wilks's $\Lambda = .94$, $F(6.236) = 1.27$, ns). A statistically significant main effect at the .05 significance level was found for gender (Wilks's $\Lambda = .93$, $F(3, 118) = 2.83$, $p < .05$). Subsequent univariate analysis showed a statistically significant gender effect on Competition-Outcome, $F(1, 120) = 3.98$, $p < .01$, with boys scoring higher than girls, but not on Competition-Process, $F(1, 120) = .62$, ns, and Cooperation, $F(1, 120) = 1.09$ ns. The gender-by-age interaction effect was not statistically significant (Wilks's $\Lambda = .93$, $F[6, 236] = 1.52$, ns). Descriptive and correlational data are presented in Table 2.

The product-moment correlation between between Competition-Process and Cooperation was statistically significant ($r = .38$, $p < .001$), as was the correlation between Competition-Process and Competition-Outcome ($r = .46$, $p < .001$). A low but statistically significant correlation was found between Cooperation and Competition-Outcome ($r = .15$, $p < .05$). As expected, correlations between Disengagement and the three other measures were negative but low, probably attenuated by low reliability and limited variability. The strongest correlation was between Disengagement and Competition-Process ($r = -.24$, $p < .01$).

Correlational analysis were next run to examine the relationships between

Table 1

Factor Structure and Item Loadings of the Cooperation/Competition Scale (Varimax Rotation)

Item	Factor 1	Factor 2	Factor 3	Factor 4
1. Working together with three or four other students on a project is a good way to learn.	85	05	-05	01
2. I learn a lot in group activities.	84	12	00	02
3. I enjoy working cooperatively in small groups.	80	17	04	-06
4. I enjoy group work in school.	77	-09	17	-04
5. I work well with others.	76	02	12	-19
6. I do my best work when I collaborate with other students.	74	-04	18	06
7. Teachers should assign a lot of group projects so kids can learn to work well together.	71	-07	12	10
8. Working with others is fun.	69	-03	15	-16
*9. I learn best when I work alone.	67	-09	03	-06
10. Students should work together for common goals.	64	23	-06	-13
11. Teachers should use more cooperative learning strategies.	61	11	17	25
12. I enjoy group learning activities where each group has an assigned role.	44	18	15	08
13. It is good to be number one!	-03	78	18	07
14. It feels good to be a winner.	27	74	-03	-25
15. It feels bad to be a loser.	-06	71	18	08
16. Winning in competition is really a good experience.	19	69	09	-25

					15
	-09		67	12	-07
17. I hate to be a loser.	22		55	22	-02
18. I like situations in which I can win a prize.	-13		52	35	-27
19. I try to get better grades than other students.	19		14	67	-04
20. I enjoy participating in academic contests.	15		07	66	-31
21. I like learning tasks that are timed.	18		25	65	
22. I like to compete in learning situations.					08
23. I like it when teachers post charts showing who is doing the best work in my class.	02		25	64	14
	17		27	52	
24. If I want to get good at something, I enter a contest.					67
25. When I work on group projects, I let others do most of the work.	-03		-11	11	67
	01		-03	-17	
26. Competitions should be prohibited.					56
27. Tests are bad because they make students compete with one another.	19		08	-12	51
	-33		-01	00	
28. When I lose, I give up.					

Note. Scale of the item marked "*" is reversed. All decimal points of factor loadings are omitted. All items are rearranged in the descending order according to values of loadings.

the competition/cooperation measures and the four external measures of goal orientations and self-beliefs. As shown in Table 2, preferences for cooperation and competition were associated with self-perception and goal-orientation. measures in a meaningful way, albeit with the moderate magnitude of the correlations. Self-Confidence was positively correlated with Cooperation ($r = .21$, $p < .05$) and Competition-Process ($r = .24$=, $p < .01$), as was an incremental View of Intelligence with Cooperation ($r = .27$, $p < .01$) and Competition-Process ($r = .21$, $p < .05$). As expected Others' Expectation (perceived high peer and teacher expectations was positively related to both Competition-Outcome

Table 2

Means, Standard Deviations, and Zero-Order Correlations of the Eight Measures From the Cooperation/Competition Scale and the Goal Orientation Questionnaire ($N = 176$)

		1	2	3	4	5	6	7	8
1. Cooperation		91							
2. Competition-Outcome		15*	83						
3. Competition-Process		38**	46**	73					
4. Disengagement		-10	-07	-24**	53				
5. Self-Confidence		21*	15	24**	18*	61			
6. View of Intelligence		27**	06	21*	16	74			
7. Others' Expectations		-07	32**	25**	19*	-07	-19*	68	
8. Challenge-Avoidance		-11	14	-04	28**	-31**	-27**	26**	60
Mean	Total	3.67	3.87	3.21	2.02	3.72	3.71	3.15	2.44
(*SD*)	(N = 176)	(.82)	(.78)	(.78)	(.71)	(.86)	(.79)	(1.03)	(.75)
	Male	3.90	4.00	3.51	2.00	3.87	3.85	3.12	2.29
	(n = 66)	(.85)	(.76)	(.79)	(.78)	(.88)	(.78)	(1.02)	(.77)
	Female	3.69	3.80	3.38	1.96	3.61	3.69	3.25	2.57
	(n = 69)	(.72)	(.73)	(.71)	(.56)	(.80)	(.71)	(1.05)	(.73)

Note. *p < .05. **p < .01.

On the diagonal line are reliability coefficients (alpha). All decimal points of the correlation coefficients are omitted. Only 66 male and 69 female students of the total sample could be identified in terms of gender.

($r = .32$, $p < .01$) and Competition-Process ($r = .25$, $p < .01$). Challenge-Avoidance was positively correlated with Disengagement ($r = .28$, $p < .01$).

To separate the unique contributions each perception/orientation variable made to the preferences for cooperation and competition, a multiple regression analysis was run, using Self-Confidence, View of Intelligence, and Expectations of Others as independent variables, and Cooperation, Competition-Outcome, and Competition-Process as dependent variables, respectively. Both Self-Confidence ($\beta = .18$, $p < .05$) and View of Intelligence ($\beta = .23$, $p < .01$) were significant predictors of Cooperation. High Self-Confidence ($\beta = .19$, $p < .05$), Incremental View of Intelligence ($\beta = .24$, $p < .01$), and Perceived High Peer and Teacher Expectations ($\beta = .28$, $p < .001$) all contributed to Competition-Process. Only Perceived High Peer and Teacher Expectations (Others' Expectations) had a significant effect on Competition-Outcome ($\beta = .34$, $p < .001$).

To identify different profiles or configurations of cooperative and competitive learning preferences within this sample of gifted students, a cluster analysis was conducted, using the Quick Cluster procedure available in the SPSS 9.0 (SPSS, 1998). This procedure is an iterative partitioning method that, based on a Euclidean distance measure that weights all clustering variables equally, assigns cases to the nearest centroid and then updates the cluster centers. The procedure continues until the solution stabilizes and successive iterations show no further reassignment of cases. In order to maximally differentiate different groups but at the same time maintain parsimony, four- and five-cluster solutions were attempted. The four-cluster solution failed to converge, while the five-cluster solution converged with six iterations. Figure 1 presents the competition/cooperation profiles of these five relatively homogeneous groups.

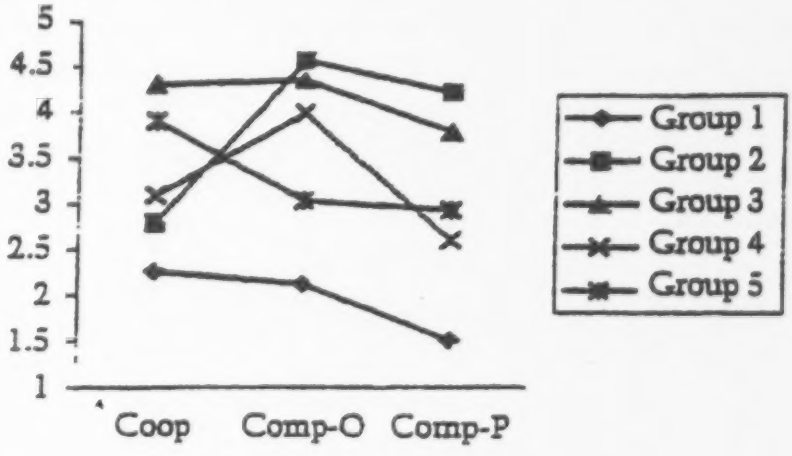
Group 1 ($n = 6$) had low mean scores (e.g., cluster centers) across the three measures of cooperation and competition. They represent a very small proportion of this sample (3.4 percent) who displayed a general negative response pattern. Group 2 ($n = 17$) had a strong preference for competition but seemed indifferent to cooperative learning. They constitute close to 10 percent of the total sample. Group 3 ($n = 62$) showed a strong preference for both cooperative and competitive learning. They represent 35 percent of the sample. Group 4 ($n = 46$) resembles Group 2 in its preference for competition-outcome and indifference to cooperation but differs from Group 2 in its low score on competition-process. Finally, Group 5 ($n = 45$) showed a distinct preference for cooperation but seemed indifferent to competition.

Discussion

A major result of this study was the partitioning of competition into two components (competition-process and competition-outcome), which suggests that students may be motivated for differing reasons in competitive learning sit-

uations. Although the two dimensions overlap with each other, as indicated by their significant correlation, the factor structure clearly demonstrates discriminant validity. In light of the fact that differentially phrased competition items elicited two distinct response patterns, the assumption of unidimensionality of competitive learning preferences seems problematic. The results of the cluster analysis also support a multidimensional view of competition. An interesting parallel can be found between the present study and a qualitative study conducted by Rizza (1997), who found that gifted female adolescents felt the need to distinguish between two forms of competitiveness: a desire to beat others and a desire to use social comparison information to motivate self-improvement. The correlational results of the present study show that, while preoccupation with winning was particularly associated with the perception of social-evaluative pressure, a preference for competition as a mode of learning has broader psychological underpinnings, including self-confidence and optimism about the

Figure 1



Means and standard deviations of the three measures for each group are presented.

	Group 1	Group 2	Group 3	Group 4	Group 5
Cooperation	2.26 (.72)	2.79 (.63)	4.30 (.48)	3.09 (.49)	3.90 (.49)
Comp-O	2.12 (.64)	4.56 (.46)	4.35 (.45)	3.99 (.45)	3.03 (.39)
Comp-P	1.50 (.47)	4.21 (.53)	3.78 (.61)	2.59 (.47)	2.92 (.64)

Group profiles. A cluster analysis of preferences for cooperative and competitive learning. Coop = Cooperation; Comp-O = Competition-Outcome; Comp-P = Competition-Process.

improvability of intellectual ability.

Previous research suggests that a competitive orientation to win and outperform others is associated with a tendency to avoid challenges. The results of the present study are equivocal in this regard, since the correlation between Competition-Outcome and Challenge-Avoidance was not statistically significant. However, this could be due to sample characteristics since this sample of gifted students tended to be academically motivated, as the low mean scores on the measures of disengagement and challenge avoidance indicate. In another study (Dai & Feldhusen, 1998) we found a desire to outperform others and look smart to be associated with a tendency to avoid risks and challenges in learning situations.

Previous research showed that preferences for competition and cooperation are relatively orthogonal or independent of each other (Kline, 1995). This was also the case in the present study when competition was defined as a desire to outperform others, since Cooperation and Competition-Outcome only shared 2.3 percent of variance. However, when competition was defined as a preferred mode of learning, as assessed by Competition-Process, the relationship between cooperation and competition was statistically significant, with the two variables sharing over 14 percent of variance. This correlation was not expected, and the exact nature of the relationship between these two preferences is not clear. One may speculate that a general positive attitude toward different learning conditions, whether in the form of cooperative learning or in the form of striving for the personal best, may underlie this response pattern, as both self-confidence and an incremental view of intellectual ability were associated with the two measures. Nevertheless, gifted students' responses seem to reveal a more complex view of cooperative and competitive learning than educational researchers have portrayed.

The results of the cluster analysis show that, with few exceptions of negative responses to both conditions (Group 1) gifted students showed discrimination among cooperative and competitive learning conditions and self-awareness as to what they prefer. The different patterns of preferences within this sample suggest that a learning condition that will motivate one group may be a turn-off for another.

On a cautionary note, this study is preliminary in that we used exploratory factor analysis and a new instrument to identify rather than determine a priori the factor structures. Thus, future research using confirmatory factor analysis is needed. In addition, this study focused on preferences for cooperative and competitive learning conditions; and our only instrument included one item that purported to assess a preference for individualistic learning. The finding that this item negatively loaded on Cooperation suggests a bipolar dimension with a preference for cooperative learning on one end and individualistic learning on the other. Future research should integrate more individualistic learning items to see whether a cooperative learning style or preference is indeed incompatible

with an individualistic style. Another concern in the present study is that the cooperation items did not specify whether cooperation is carried out in homogeneous or heterogeneous classroom settings. Although our initial purpose was to assess general preferences for competition and cooperation among gifted students, a more refined analysis should take this situational factor into account.

Implications for Gifted Education

Differentiating a desire to win or outperform others and a preference for competition as a mode of learning has theoretical as well as practical significance. Advocates of cooperative learning often view competitive learning as counterproductive and detrimental to motivation. Such a view, in light of the findings of the present study, should be qualified. While a self-enhancing desire to outperform others may not be conducive to motivation and learning under competitive conditions, a related aspect of competitiveness — a perception of competition as an energizing factor for learning and a striving for the personal best — may facilitate learning and self-improvement.

Given the diversity of preferences among gifted students, a view of cooperative or competitive learning as beneficial to all seems untenable. The question of whether gifted students would be better off with a more cooperative-oriented learning environment or worse off with a more competitive-oriented learning environment may be simplistic. The results of the present study suggest that a given mode of learning, be it competition or cooperation, could potentially produce differential effects among gifted students, depending on how they perceive and interpret the situations and how they construe the task goals in the learning situations. This does not mean that students' preferences determine their motivation and learning outcomes and should dictate our teaching methods. Whether cooperative or competitive learning serves gifted students well needs to be further studied, and situational constraints that render it effective or ineffective need to be better understood (Robinson, 1997), regardless of how students generally feel about it. It does suggest, however, that students' phenomenal experiences can mediate or moderate the effects of cooperative and competitive instructional arrangements.

Clinkenbeard (1998) suggested that the individualistic mode of learning is neglected or even unduly questioned in the midst of the current cooperative-learning movement. This trend is particularly problematic, given the research evidence that many gifted and precocious youngsters prefer solitary learning (Li & Adamson, 1992; Rizza, 1997). If some gifted students seek autonomous learning opportunities that allow them to explore their unique interests and talents or deeply engage themselves in complex learning materials, there is no reason why they should be denied such opportunities for the sake of communal goals or group learning in heterogeneous or homogeneous grouping conditions.

References

Clinkenbeard, P. R. (1989). The motivation to win: Negative aspects of success at competition. *Journal for the Education of the Gifted,* 12, 293-305.

Clinkenbeard, P. R. (1998, November). *In defense of individualistic goal structures: Balancing group and solitary learning.* Paper presented at the Annual Convention of the National Association for Gifted Children, Louisville, KY.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* New York: Harper and Row.

Dai, D. Y., & Feldhusen, J. F. (1996). Goal orientations of gifted students. *Gifted and Talented International, 11,84-88.*

Dai, D. Y., Feldhusen, J. F. (1998, April). *Mapping an interrelated network of constructs associated with goal theories: A study of gifted students.* Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

Dai, D. Y., Moon, S. M., & Feldhusen, J. F. (1998). Achievement motivation and gifted students: A social cognitive perspective. *Educational Psychologist,* 33, 45-C3.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist,* 41, 1040-1048.

Dweck, C. S. (2001) Students' theories about their intelligence: Implications for talent and achievement. In R. Friedman (Ed.), *The psychological development of the gifted child: The emotional price of excellence.* Washington, DC: American Psychological Association.

Dweck, C. S., & Henderson, V. L. (1988). *Theories of intelligence: Background and measures.* Unpublished manuscript.

Johnson, D. W., & Johnson, R. (1989). *Cooperation and competition: Theory and research.* Edina, MN: Interaction.

Johnson, D. W., & Johnson, R. (1993). Gifted students illustrate what isn't cooperative learning. *Educational Leadership,* 50(6), 60-61.

Kline, T. J. B. (1995). Cooperativeness and competitiveness: Dimensionality and gender specificity of the Classroom Life Instrument. *Educational and Psychological Measurement,* 55, 335-339.

Li, A. K. F., & Adamson, G. (1992). Gifted secondary students' preferred learning style: Cooperative, competitive, or individualistic? *Journal for the Education of the Gifted,* 16, 46-54.

Matthews, M. (1992). Gifted students talk about cooperative learning. *Educational Leadership,* 49(2), *48-50.*

Nicholls, J. G. (1989). *The competitive ethos and democrative education.* Cambridge, MA: Harvard University Press.

Rizza, M. G. (1997). *Exploring successful learning with talented female adolescents.* Unpublished doctoral dissertation, University of Connecticut, Storrs.

Robinson, A. (1990). Cooperation or exploitation? The argument against cooperative learning for talented students. *Journal for the Education of the Gifted, 14, 9-27.*

Robinson, A. (1997). Cooperative learning for talented students: Emergent issues and implications. In N. Colangelo & G. Davis (Eds.), *Handbook of gifted education* (2nd ed., pp. 243-252). Boston: Allyn and Bacon.

Sapon-Shevin, M., & Schniedewind, N. (1993). Why (even) gifted children need cooperative learning. *Educational Leadership,* 50(6), 62-63.

Slavin, R. (1990). Ability grouping, cooperative learning, and the gifted. *Journal for the Education of the Gifted,* 14, 3-8.

SPSS 9.0 (Computer software, 1998). Chicago: SPSS.

Subotnik, R., Kassan, L., Summers, E., & Wasser, A. (1993). *Genius revisited: High-IQ children grown up.* Norwood, NJ: Ablex.

Thorkildsen, T. A. (1988). Theories of education among academically able adolescents. *Contemporary Educational Psychology,* 13, 323-330.

Thorkildsen, T. A. *(1994).* Some ethical implications of communal and competitive approaches to gifted education. *Roeper Review,* 17, 54-57.

COLLOQUIUM 2002

EXPLORING CONSCIOUSNESS

THINKING ON THE EDGE

August 16-18

Three days of stimulating intellectual excitement in Troy, Michigan. Nationally known speakers who'll expose you to cutting-edge ideas; roundtable discussions where you can explore and debate those ideas.

Contact American Mensa, Ltd, 1229 Corporate Dr W, Arlington, TX 76006-6103, or call 817-607-0060 for more information and registration details.

Presented by American Mensa and the
Mensa Education & Research Foundation
Sponsored by Compuware Corporation
Hosted by Southeast Michigan Mensa

Visit us on the Web at www.colloquium2002.org

MENSA

Research Journal

Mensa Education & Research Foundation
1229 Corporate Drive West
Arlington, TX 76006-6103

NON-PROFIT
ORGANIZATION
U.S. POSTAGE

PAID

Arlington, TX
Permit No. 922

76

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

[X] This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

[ ] This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").